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THE
FIRST AND CHIEF
CROVND OF ARCHITECTURE

*Used in all the auncient and famous
monymentes with a farther &
more ample discourse vpon
the same, than hitherto
hath been set out by
any other.*

PUBLISHED BY
Iohn Shute, Paynter
and Archytect.

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1563.



THE CONTENTES OF THIS BOOKE
briefly collected & set out for the helpe of the Reader.



He discourse from time to time howe this science of Architecture hath increased. Folio.i.

What the office and duetie is, of him that wilbe a perfecte Architecte or maister of buildinge. Folio.iii.

The first pillar that was found out by the Ionians, vppon the simetrie of a strōg man, being 6.times the length of his foote in height, was renewed again by the Tuscans, and of them taketh his name to be called TVSCANNA. Folio.iiii.

The second pillar called DORICA builded to his perfection in Grece, by Dorus, and of him taketh his name whose height is 7.times his thiknes whiche thiknes is called the diameter. Folio.vii.

The third pillar called Ionica was set in the tēple of Apollo, and Diana, finished and builded by the Ionians, whose height is 8.times his thiknes. Folio.ix.

The fourth pillar called Corinthia found in the citie of Corinthe by Calimachus the excellent Architect, whose height is 9.diameters. Folio.xi.

The fifth pillar named Composita or Italica made to his perfection in the time of Vaspasian by the auncient Romaynes, whose height is 10.diameters. Folio.xiiii.

Of a nother auncient pillar, necessarye to the before named pillars found out to his perfection by the Atheniens called Atticurga or Atica. Folio.xvi.

The placing of the fve orders, namely, AREOSTYLOS, DIASTYLOS, EVSTYLOS, SISTYLOS, and PICNOSTYLOS. Folio.xvii.

A rule of Vitruuius geuen for these thre pillars, Dorica, Ionica, Corinthia, for the placinge or displacing of them one aboue an other. Folio.xviii.

A rule for the diminishing of the pillar vnder the Capitall.

eodem.

An example to be obserued for the increase of the height of Epistilium

eodem.

¶ Faultes escaped in the printing are thus
to be corrected.

In folio ii. line. i. a. for Florence reade Florence.

In folio.vii. line. xxxiiii b. for Trochitus, reade Trochilus

In folio.xi. line. ii a. for Calimachus, reade Calimachus

TO THE MOST HIGH AND EXCELLENT

Princes Elizabeth, by the grace of God Queene of England,
Fraunce, & Ireland, defendor of the faith. &c.



Tis both rightely and excellently affirmed of Marcus Tullius Cicerō, in his first booke de officijs (right Excellent Princes & my moste gracious souerayne Lady) that no man is borne into this wolrd for his primat and singuler weale because our Countrie chieflye partely our parents, & partly our kinsfolke do require as it were a duety of vs & recompence for that the whiche we haue receiued: and like as the members of mans body be diuers in number, and haue according to their diuersitie diuers and peculiar properties so is it in a good and well setteled comen weale: in whiche ther is no office so base, or handie worke so simple whiche is not necessary and profitable for the same. And as the members of the body doing without impedimentes their naturall dueties, y whole body is in an helthful hermony, & able to performe all that belongeth to the same. So is it in a publike weale whē all men in their calling, do labour not onely for their owne gayne, but also for the profit and comoditie of their Countrie. which thinges when I according to my small Capacitie did waye with my selfe, I was as it were stirred forward to do my duetie vnto this my Countrie wherein I liue and am a member. And so much the rather, for that being seruant vnto the Right honorable Duke of Northūberlād, 15 50. It pleased his grace for my forther knowledg to maintaine me in Itallie ther to cōfer w the doctōes of y skilful maisters in architectur, & also to view such aūcēt Monumentes herof as are yet extant. wher vpon at my retoune, presenting his grace with the frutes of my trauailes, it pleased the same to shewe them vnto that noble king Edward the vi. your maiesties most deare brother of famous memorie, whose delectation and pleasure was to see it, and suche like. And hauing the sayde trikes and deuises aswell of sculture & painting as also of Architecture, yet in my keeping, I thought it good at this time to set fourth some part of the same for the profit of others, especially touching Architecture: wherin I do followe not onely the writings of learned men, but also do ground my selfe on my owne experience and practise, gathered by the sight of y Monumentes in Italie. And because all the members of the body haue theslye and principally a duetie to the head, as gouernour of the whole, and without which, al the other can not liue. So my duety inforseth me most soueraigne lady (the perfect & natural head next vnto God of this our common weale,) to shew a token of the same vnto your highnes, in presenting these my poore and simple laboures wher vnto I am the rather boldned considering your highnes delight in all kynd of good learning, and perfect skill in the tonges and sciences Most humble beseeching your royall maiestie to vouchsafe to let this my small trauaile and woorke passe vnder your noble protection and defence: and I according to my bound and duety shall pray to God for your long life and prosperous Raygne, with peace and tranquillitie to his honour and glorie. Amen.

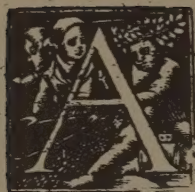
Your Maesties most humble
and obedient subiecte.

A. y.

Iohn Shute.

*Recognized
the ancient*

JOHN SHUTE PAINTER AND
Architecte: vnto the Louing and freindly Readers.



Mongest al other thinges (gentel & louing reader) wherwith y deuine prouidence of almightie God hath most liberally, and plentifully endewed mankinde: there is nothing eyther for the dignitie and worthines of the thyng selfe, or for the wonderfull estimation and price whiche in all times it hath bene in, more excellent, pretious, and comendable then learning, knowledge and science, the which alone causeth mortall men to be most like immortall Goddes: and as it taketh out of their mindes that rude and vncomely admiration wherwith through ignorance the simple in most vaine trifles are wonderfullie occupied. So to the wise be monumentes and woorkes skilfully practised and carfullie left both commendable & merueilous: yea and suche, as neither the iniuries of any stormes and tempest can cleane wast and consume, no nor (as it seemeth) the enuie of man or spoyle of enemies deface & ouerthrow, neither that which is greatest of all, time it selfe can deface or cast out of mynde. And amongest all other studies there is none in my simple iudgement of this sorte that deserueth greater prayse, then that whiche is of the grekes named *Architectonica*, and of the latines *Architectura* (I thinke not altogether vnfitte nor vnaptlie by me termed in Englishe, the arte and trade to rayse vp and make excellent edifices and buildinges) the whiche like as in all other ages before hath bene in merueilous accompte and estimation, as ful wel appereth by diuers learned Philosophors and famous princes that imbraced y same, as Plato, Aristotel, Plini, who were excellent therein as their workes will witnesse. Alexander Magnus, Iulius, Cesar, Vespasian, Adrian with many other auncient greckes and Romaines which laboured to aduance their name therby who lefte many argumentes of their vertue, bygh intentes and doinges by y same with many other famous, of which Plini, maketh mention. Vitruuius and Frontyne, of later dayes men prayse worthy very studious and painfull therein. So in vs seemeth it not only to craue the wonted comendation, but also to be most necessarie and profitable as well by the condition of the time as necessitie of the thing it selfe. And surely suche is the amplitude and largnes (I may well say perfection) of this facultie, that without sum acquaintaunce with many other artes ye shall not enter into y depe secrettes: for it hath a natural societie and as it were by a sertaine kinred & affinitie is knitt vnto all the Mathematicall sciences and knowledges are frendes and a maintayner of diuers rationall artes: so that without a meane acquaintance or vnderstanding in the nyether paynters, masons, Goldsmithes, enbroderers, Caruers, Iohners, Glasyers, Grauers, in all maner of metalles and diuers others moe can obtayne anye worthy praise at all. Nowe all these being braunches of that forsayd foundatiō, stocke, or science shall bring forth the frutes of it to their great profites, and (commoditie of the Realme, which continuing and throughly practised in the same) by time shall increse riches, worshippe, and fame. Considering with my selfe the manyfold commodities and profites that should redownde to a great many louers of the same, and contrary wise what a losse and hinderance it hath bene to them that lacke the languages & learning who of necessitie hath remained in ignorance to theyr great losse and discomodity of the Realme. Not withstanding I know well there hath bene a multitude and at this time be very many lerned men who hath (through the trauaile receiued) the ful perfectiō of the prudent ladye

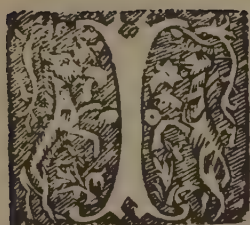
lady Scientia, of whom so depely learned I craue pardon for my rude rashnes that I hauing
 but tasted a certaine swetenes of her excellencie and liberalitie, wherfore naturall loue hath
 drawne me to aduance her reputation and honour, according to my poore abilitie and good
 wil, the thinge nothing garnished as it ought to be, but most briefly and playnelye with suche
 demonstrations that it might edifie them which of a long time haue desired and reached at it
 to attaine Also for the encoraging of those which earnestly studied and fauored it. I thought it
 therfore good to sette out and commit to writing in our natue language, parte of those thinges
 whiche (both by great labour and trauaile, at the first for my priuat commoditie I searched
 out and for my owne pleasure out of diuers aswell latin ana Italian, as french and dowche writ-
 ters) I haue diligently gathered. As also passed many countries and regions to see, both in Rome
 amongst the antiquities and in the most notable places of Italie, where are most excellent build-
 dinges, and intending to write of Architecure or buildmges: I thought it best neither with
 the lightest or least profitable parte thereof to beginne, nor altogether after the moste slender
 sorte to handell that which I purposed to intreate vpon. I haue therfore taken my first ente-
 raunce into the writing of this arte, at the fine antique pillers or Columnes, comonly named
 of the places and persones partely where and of whom they were inuented, and partely of their
 vertues & properties of those that they wer likned vnto, which pillers names are these as fol-
 loweth. Tuscana, Dorica, Ionica, Corinthia, & Cōposita, The treatise of these pillers, as it hath
 in it most delectation and pleasure in the beawtie and comelines of the workmanship appertay-
 ning vnto them. so though at the beginning, it be mingled with a littell asperitie and as it were
 bitternes (for the difficultie and hardnes wherwith as both principalles and also other thinges
 of any excellencye at the first are coustomed to be, it is somewhat Comberous) yet it is both
 so necessary and profitable, that neither without it any man may attaine to any estimable part
 of the reste of this science, and with it as by a klew of thred or plaine path way a man may most
 easely pearse and lightlye pasouer the most darke & vnknown corners of the whole proceſse
 thereof. But to speake of the wothines of this parte of Architecure: it semeth almost altogi-
 ther superfluous, wherfore taking these to suffice in the part to be sayde, I will now shew what
 trade and order I do followe in the declaration of the measures, proportions, and garnishmen-
 tes of these before mencioned pillers. For so much therfore as in teaching of all artes thre thinges
 are chiefly to be considere d that is to say diligence in geuing y preceptes, aptnes in chosying
 plaine and euidente examples, and last of all practise and experience of the teacher. I haue for
 the first parte taken for my author chieflye to be followed the noble and excellent writer Vi-
 truuus one of the most parfaicteſt of all the Antiques, and for that neither any one man in
 what arte so euer it be is absolute, and that other singuler men of the Antiques and he in many
 pointes do disagre and differ (which Sebastianus Serlius, a meruelous conning artificer in our
 time, in many places of his workes learnedly doth declare. I haue added vnto him vpon what
 soeuer in any thing semed nedfull the opinion and meaning of the sayde experte writer Seba-
 stianus, here and there also wher I thought meete I haue ioyned the minde and iudgement of
 one Gulielmus Philander a notable man whiche about the yere of foure lorde. 1546. wrote
 vnto the frenche king Anotacions vpon Vitruuius, concerning this matter or suche like. Now
 for examples which are necessarily required to the opening of such darke matters, I haue eue-
 ry where through the whole proceſe of this present treatise after the preceptes to the light-

ning of them sette both demonstration and figure, and as for practise and experience of these things which I teach, I assure the most gentle reader and all other that shall be readers of this my little worke that I have put nothing in any part thereof concerning proportion & simetry to use the accustomed terme of the arte of the fornamed columbes, which I have not as well seene and measured in Italie, from whence they came first unto vs amongst the Antiquie woorkes as read and studied in England in the Antientique writers, that I might with so much more perfection write of them as both the reading of the thinge and seeing it in dede is more then onely bare reading of it. This small and simple treatise of myne I can not tell whether with like felicitie brought to his perfection as with no small labour and studie for this time ended. I thought meete as the firste frutes of my poore attemptes & induors to leue as a duetye and dette of me to be payde, and that well receiued of all men, I shall thinke my selfe most happye, and if not of all persones, yet at the least wise of suche as be honest esteemers and accepters of other mennes diligence and studies. The which if it come to passe, both I shall be glad of my laboures in these thinges bestowed and for the loue of my naturall Countrymen be further more encouraged hereafter to attempte greater thinges. Thus almighty God preserve the in godly exccercises to his pleasure for euer Amen.

The discourse from time, to

TIME HOUVE THIS SCIENCE

of Architecture increased.



IN the beginning of the world, Nature by necessitie dyd firste inuent
straunge maner of couertures or houses for the people to inhabyte in.
But of all suche order and forme of buyldinges as were before Noes
fludde, it shall not nede to make reberfall. But after the fludde of Noe,
the people agayne, when they were increased and multiplied, did daylye
more and more, seeke for theyr commoditie to be defended from the
heate of the Sunne, and coldenesse of the ayer: some succoured the selues vnder the shadowe
of trees, and other taking occasion thereby, deuised to set vp forked stakes, with the forkes
vp wardes, and there vpon layed bowes. After wardes they still deuised and daylye did practyse
more and more in that kinde. And in time, they perceyuing the vse of cutting with yron, did
set vpright trees as they had before, wyth theyr stakes being done with their handes, and by-
cause they should not cleaue with the heauines of theyr burdens aboue at the toppe, they com-
passed them about wyth ringes of Iron, and called them Pillers or Columnes. The forme and
shape of which Pillers, they did imitate, fashioning them of stone. And then they callynge to
theyr remembraunce the fludde of Noe, which had drowned all the world, deuised to build the
towre of Babilon. So they added in steede of the ryng aboue at the toppe of their pillers, these,
which our author Vitriuius calleth *Astragali*, and *Apophigis*. So in proces of time, diuers witty
men euer addinge some thinge thereto, at the last it came to some perfection. Then did they be-
ginne to deuise and practyse after dyuers fashions, and buylded a great parte of the towre. In
which buylding came the deuision of tounes, or languages, whereby these buylders were par-
ted and scattered abroad vpon the face of the earth, and inhabited many straunge countreyes,
and began to buylde in Egipte, and after that in many other places, as semeth by the workes,
which Belus, Ninus, and Semiramis buylded, which were spred so farre, as som men do suppose
that Trier in lowe Doutheland should haue bene buylded of the brother of Ninus as ye may
perceyue by Berofus, Herodotus, and many other that are writers and witnesses of the same.
Yea, shortly after was made Memphis, the whiche now is named Alkayre, the whiche was
buylded by a kinge of Egipte, hauing in compasse round about, one hundred and fiftie stades,
or as some interpretate it, so many furlonges, and in like maner the aunciēt citie of Thebes in
Grece, besides many other cities, which were made before and after. In the which it is to be
supposed, that there were sumptuous temples and Pallaces. So, that they were experte and be-
gan in that science to come to more perfection. And immediately after a wittie man named
Dorus (the sonne of Helemer and Optix the Nymphe) inuented and made the firste pillar
drawen to perfection, and called it Dorica, after his owne name. Shortly after him, there was
Ion, sonne of Xuthus, that was made gouernour of a part of Caria, which he had wonne, he
in that countrey buylded these cities folowing, Priem, Samum, Teorem, Colophonem, Nachiu,
Eritbren, Phoceam, Clazomenas, Lebedum, Melyten, of the which, the citizeins after wardes
draue out of that countrey the Caryans, and called it Ionia, after theyr kinges name, and then
they made their churches and Temples of their Goddes, and first began with Appollo his Tem-

The chiefe Groundes

ple as they had sene it in Grecia before. And they not knowing any measure of pillours considered howe to make a iust Symetrie, that it might be comely and also stronge, toke their mesure by the foote of a stronge fashioned manne, findinge him to be in height sixe times, the length of hys foote, and so by that mesure finished all the partes of that pillar, and called it Dorica, bycause they hadde sene it in the workes of Dorus, and so therewith finished the temple of Appollo, after that they deuised to make a temple to the goddesse Diana, wherein they dyd deuise an other Symetrie, for that temple, as they hadde done for the temple of Appollo, and fashioned it after the iust measure of a woman, to the ende and purpose it shoulde be more beautifull and sklender making it eghte Diameters, in height, and called it Ionica, after their countrey, adding therunto in the stead of her shoowe, that which Vitruuius, nameth Spirra, and in the Capitel, was set Voluta, in the steade of her beare, whiche trussed vp with a lace, on either side of her heade, for an ornature and garnishment of the Capitell. They also fashioned the body of the pilloure, and filled it with Canalicoli, and Striges, as though it were the plates of her garmentes. Then they being more delighted with the beautifulnes of the height therof added also an other Diameter, vnto the forsaide Dorica, and made it seuen Diameters, in height. After that in the citie of Corinthe, was buried a certaine maiden, after whose burial her nourishe (who lamented much her death) knowing her delightes to haue bene in pretie cuppes and suche like conceytes in her life time, with many other proper thinges appertayninge onely to the pleasure of the eye, toke them and brake them, and put them into a littell preatie baskette and did sette the basket on her graue, and couered the basket with a square pauinge stone. That done, with weping teares she sayde Let pleasure go wyth pleasure, and so the nourishe departed. It chaüced that the basket was set vpon a certaim roote of an herbe called Acanthus, in frenche Brackursine, or bearefote with vs, now in the spring time of the yere, when euery roote spreadeth fourth his leaues, in the encreasing they did ronne vp by the sides of the basket, vntill they coulede ryse no higher for the stone, that couered the basket, whiche being square and castinge hys foure corners ouer the hydes of the rounde basket, constrained the braunches of the herbe to draw downwardes againe with a sertaine compasse, and so grewe to the fashion that Vitruuius, calleth Voluta. So is there also other smaller that come oute of the Caules, and stalkes, and are named in greeke Helices, and the basket beyng hydden vnderneath wyth a multitude of leaues. In this cytie one Calimachus, an excellent Architectur, passyng or goinge thereby, regarding the beautifull worke of nature, afterwarde vsing then the measures of the forsaide Pillours, makinge the pillour Ionycke, vpon the whiche pillor or Scapus thereof, he set the Capitell, the whiche he hadde sene vpon the tombe of the mayden, the whiche garnished beautifullly the whole pillor, whiche Capitell, was in height the thicknes of the pillor, and named it Corinthia, because it was made in the cytie of Corinthe, by handes of Calimachus, who for the excellence of that arte was named Catatechnos, and after that this worke growing more and more to perfection came to the Romaynes, and so through oute all Italie, and manye other places, yea, and was throughe practised by them. Then the Tuscanes, beginning to builde, hauing knowlaige of the pillor, whiche was firste inuented by the Ionians, vpon the Symetrie, of a strong manne inuented to buylde stronge after the maner aforseyde, yea, and to garnishe also theyr cyties and townes beautifullly with a pillour of their owne deuise whyche yet at
this

Of Architecture.

this present time, remayneth wholle in the citie of Forence and in the countreys there about they fourmed and fashioned that pillor, whyche to this daye is named after the sayde countrey *Tuscan*. The Romans, then wel practised in their measures of all the rest of their Columes, and also desirous to encrease so noble an arte, by some noble accession, beholding and regardinge the beautifulnes of these foresayd pillors, that is to say. *Tuscan*, *Dorica*, *Ionica*, *Corinthia*, gathered oute of eche of the same pillers, that, whyche they thought moste faire, and made a piller of pleasure or triumphe, after the moste excellent maner that euer was before. This piller was firste buylded to his perfection in the time of *Titus*, *Vespasianus*, who sette it at hys triumphe in the higheste place of hys arche triumphall, and called it *Composita*, or as some doo name her *Italica*. These pillers, partelye for their beautye and comelines, partelye for their fortitude and strength, the writers of them, haue resembled and lykned to certain feyned Goddes and Goddeses. As namely *Tuscan*, is applied vnto *Atlas*, the kyng of *Mauritania*; *Dorica*, vnto *Hercules* and the god *Mars*; *Ionica* to *Diana*, or *Appollo*. *Corinthia* vnto *Vesta* or some lyke virgin, and *Composita*, to *Pandora*, of *Hesiodus*, the which he faineth to haue ben endewed wyth diuers of those graces and coninge, wherwith the beforenamed Goddes and Goddeses were indewed, so that it semeth by the auncient writers and Authors, which haue made reherfall of these thinges, that they haue bene had in great estimation and prife, as ye maye wel perceyue by *Isis*, which buylded a temple in *Egipte* for her father *Iupiter*, by cause her husbände *Osiris*, and she were in great estimation, and also for theyr beautifull inuentions and wysedome, were honored as goddes. This maye well be gathered by their pillers and ornamentes, that belong therunto, the whyche were noted and marked with Hebrewe letters, and also by the Sepulcres of *Amasis*, which was made more, then. *M. D* yeres before the birthe of *Christe*, in the which one of the *Pyramides* was (CCCC. thousande mens workes, the space of twentye yeres, the whyche remayneth in *Egipte* to be sene at this present daye, and manye other beautifull buildinges of that nacion. Reade. *Diado. Sic. li. 1. 2.* Also it semeth by many other writers, that after *Babell* decayed, incontinently the *Hebrues* most triumphantlye florished in this point. Thus we maye perceiue that the *Hebrues*, receyued their knowlage of the *Babylonians*, and the *Grekes*, receiued it of the *Hebrues*, in lyke case the *Latines*, and the *Italians* receiued theirs from the *Grekes*, the whyche our Author *Vitruuius*, doth not deny, in makynge demonstrations to a *Latine* worke with *Greke* letters as vpon the inuention of the *Grekes*, which concerninge hys science in *Architectura*, in the whyche thing *Vitruuius*, semeth muche to be comended, as one, that did not disdayne to acknowledge the authors and writers, out of whom he receiued his knowledge. In so muche, as in hys seuenthe booke of *Architecture*, he affirmeth (by naming the notablest of the) that they which haue left these thinges in wryting, are to be commended, whose names also I thought not altogither the metest to be omitted, & therefore do rehers these. *Theodorus*, which wrot of the *Dorica*. *Etesiphon* and *Metageues*, who wrote of the *Ionica*, which was set in the temple of *Diana*, at *Ephesus*. The *Hermogenes*, hath writtē of *Diana* in *Magnesia*, after *Argelius*, which made the reherfall of the *Corinthes*. Firstly *Sathirus*, & *Pitheus*, who did speake of *Masolea*, in *Halicarnasso*, last both *Cares*, *Briaxes*, *Scopas*, *Praxiteles* & many other, as *Nexaria*, *Theosides*, *Philemon*, *Demophilos*, *Pollis*, *Leonides*. *Silamon*, *Melampus*, *Sarnacus*, *Euphranor*, al the which verly, are to be thanked & comended throughly

The chiefe Groundes

For by them we know and perceiue (as though we sawe in a looking glasse) the thinges, that haue benefene, done and made long before. Neuertheles, it hath ben withdrawn and hidden (as almost al other knowlaiges, for a long season hath bene) through ignoraunce, for so it came to passe by the iniurie of time, that all sciences and learning haue bene kept secret and not spoken of in so much that at this daye, there are many which name this order of building to be of the new facion. But it can not be new, that hath so many ancient Authors and maisters thereof, whom namely the Noble writer or Author Pliny, hath in so great estimation, that for their sake he blameth al them greatly, that haue written and wrought any thing, and haue not named the authors and maisters, of whom they toke their inuention especially of suche great and vspeakable worke, of which the honour and fame, hath bene as much vnto the maker thereof, as it was vnto them that caused those thinges to be made. But now of thie thinges we haue spoken ynough, let vs therefore speake some what of the worthynes of this science, and of the office of an Architect.

VVhat the Office and Ductie is of him that vvyll be a
Perfekte Architecte or Mayster of buyldings.



Architectur (by the common consent of many notable men) as (Cesarius) sayth, ys of all artes, the most noble and excellent, Contayning in it sundrie sciences and knowlaiges wherwyth it is furnished and adourned, as full well Vitruuius doth affyrme and declare by his writinge. For saith he, an Architecte must be sharpe of vnderstandinge and both quicke and apte to conceiue the trewe Instructions and meanings of them that haue written thereof: and must also be a perfect distributor of the great mysteries, that he hath perceued and experymented, that playnlye. and briefly he maye discusse and open demonstrations of that which shalbe done or mete to those persones, that shalbe the fownders of any noble workes. wherfore he ought first to be a very good Gramarian, then to haue experte knowladg in drawing and protracting the thinge, which he hath conceyued, Nexte he must haue a good sight in Geometrie, Consequently in Opticke and in suche lyke sciences he must haue good perceuerance. Likewise in Arithmeticke he must be very parfaict, and in histories singulerly well seene. He must also haue a good sighte in Musycke, and some knowlaige in Phisicke, not altogether ignoraunt in Astronomie, he must also besides all thise ben Philosophie, very experte. The causes why al thise sciences before named, ought to be in him that is a parfaict Architect and maister of buildinges be of Vitruuius in this sorte reherfed. If he haue (saith he) learninge he shall strengthen his memory with all written bookes, and throughe drawing vtter his fantasie and shewe the trike or fascion of the thing that he goeth about to make And Geometrie teacheth vs the order of rules, Compasles, Squiers, Quadrantes, and Iuste waterleueles with manie other knowlaiges that procedeth thereof as Euclide, and other authours & also Sebastian Serli, in his first Chapter reherfeth, Opticke sheweth vs howe and by what meanes the lightes should be set into the House, And howe they should be brought from place to place, as to serue the hole house, and cuery place therein, whiche Optica, is properly called perspectiue, and is of a furder speculacion, then therein can or nedeth to be exprest: which of Sebastian Serlius in his second booke first second and thirde Chapter is partely

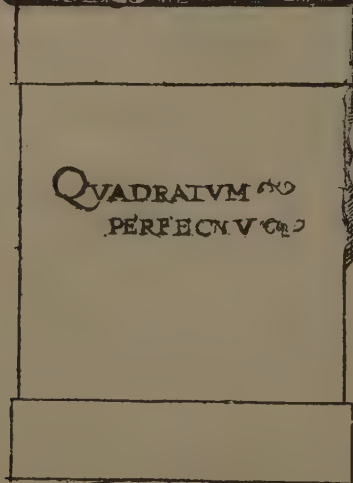
Of Architecture.

partely declared. Arithmeticke, teacheth vs innumerable pointes most necessarily required to the parfaicte knowlaige of this art. for without yt, we can neither know or yet discusse the measures and harde sentences or questions of Symetrie, neither howe to accompte the Coste and charges of our labores. An Architeccte also must haue a knowlaige in hystories, There be moreouer multitude of causes in buildinges, and very many ornatures and garnishinges of which he must nedes geue answeere, from whence they come, and for what purpose they are made; As for an example, If a maister workman should make ymages, figured like women, clothed and garnished after a beautifull soarte, which are nanied Cariatides, and set them in his worke for pillers and make ouer their heade Mutilos, and Coronas, yf yt were demaunded of him to what purpose those ymages wer made, then he shuld answer that Caria, a towne in Peloponeso, trayterously conspired with the Persians, against the Grekes. But the grekes getting the victorie ouer their enemies, agreed with one accord, and besieged Caria, and wan the citie, killed the men and toke the women, carieng them as bond women not suffering them to put of their Ryche ornamentes and lewelles to the intent, that the shoue of their triumphe, myght be thereby the more glorious. So they subdued, weare brought into bondage. For this cause and other suche lyke the chief maisters of Architecture made in their common places and pallaces suche women to beare vp the burthen of their buildinges, the whiche was a remembraunce and memorial of their punishmentes for their mallice against the Grekes, sustained by the Cariatides, that is to saye, by the women of Caria. In lyke case dyd the Lacedemonians, whan they with so littell a power ouercame suche a great host of the Percians, and slew them. After which conquest in their triumphe, they builded a gallery whiche shoulde remayne vnto them for a perpetuall and euerlasting token of victorie and did set therein the figures, and counterfeites of the Percians, which before wer their prisoners, in their straung apparail, standing in their pallaces, supporting their galleries, wherfore they were feared of their enemyes therby, and also yet encouraged the hartes of the Citizens, against their other enemies and backe frenedes. Vpon this example Pausanias, did afterwarde make the counterfeates of the same Persians, and vpon their heddes, he laide Epistilia, and Coronas, setting betwixt them Zophorus, the which was garnished and figured with the Iewelles, that they had taken from them being their enemies, As Cuppes, gebletes, cheines, girdelles, & suche lyke other Iewelles, which wer plentiful among the Persians, and vnder their fete was set Stylobata, wherin were written their titles, Many suche Histories an Architeccte, ought of necessitye to know. Next vnto this doth follow Musicke, which also is verie necessary for an Architeccte, for these causes must he haue, as it were a foresight in it, that therby the principall chambers of the house, shuld with suche order be made, that the voice or noyse of musicall Instrumentes, should haue their parfaict Echo, resounding pleasauntly to the eares of those that shalbe heares therof, as also the Romaines, vsed in all their pallaces & for many other necessities therunto belonging, of the which Vitruuius, maketh further demonstration, as the refreshing of the Melancolicke mindes, which ar alwaies trauailing for further knowlaige. But now consequently followeth the cause why he should haue sight in Phisicke, which through the knowlege of Astronomie, parfaictly doth declare the mouings of the heauens, and where vnto by their naturall inclinations they be disposed, as also the vnderstanding of the plagies or Coastes of the world, which the Grekes call Climata, to thyntent that he maye shewe what ground plottes stande in the most holsom ayer to builde vpon. And which also be the sweet and holsome waters; the moste fertill and frutefull places,

The chiefe Groundes

places as namely for those plottes that stand contrary to thys order are not mete or necessarie to build vpon. This holosome ground so found wheron Ye shall build, yemust first haue knowlaige how to cast your ground plotte, wherein you must deuide all your seuerall places of offices appertayning to the furniture of your house, your principall chambers of rest and libraries, and such other like must receyue their lightes from the East, for that the sone by natural heate at his rising draweth to him all corrupte humors and euill vapors of the earth and quickneth the spirittes of man and beast, and if ye will cast therein baynes or hot houses, with winter Chambers and parlors they shal receiue light from the west. For that side is defendid from the south windes which are greuous and contagious and also great wasters of all kinde of buildinges, as may welbe perceyued by old Edifices. Your study places, were you wold write, draw or deuise, or the places wher your Sellers shuld be cast, ought to receiue their light from the northe, by cause in that parte are the lights, which are stedfast, As for lights other wayes appointed I referre to the builders of those works. But Vitruuius, maketh no further mention therof. Now also it belongeth to an Architecte, to haue the knowlaige of Astronomie, wherby he should directly know the foure principal places, which are East, west, north, and south, with that, whiche they call Equinoctium, and Solsticium, and the mouings of the sterres, for without this knowlaige none can attaine vnto the making of horologes, quadrantes, Clockes dialles, in the sonne necessary to be set in goodly Edificies. It belongeth also to an Architect, to haue sight in Philosophie, which teaching to be of a noble courage as Vitruuius saith, and also gentil, curtiuous, faithfull and modest, not geuen to auarice and filthy lucre, as not to be troubled or corrupted with rewardes or giftes, but with grauity and Sagenes to conceine al bonor and dignity in al thinges conseruinge his good name and estimation. Let him also take a charge of workes in hand, being desired and not desirous of workes. He, which wold be an expert Architecte, ought to haue all these sciēces and knowlaiges, To him that hath any science or knowlaige and iudgment therewith conceined, it is most eident and plaine. Neuert belesse it will sound straungely to some that a man shoulde learne so many sciences for the atteinig of one, and kepe all them in memorie for the practise of the same: yet it is necessary and also mete, that although he be not parfaict in them or euery of them, yet he should haue some knowlaig in them and so it behoueth, neither it is requisit that he should be so parfaict a Gramariā, as was Aristarchus, and yet not altogether without it. Nor in Musicke like vnto Aristoxenis, neither in painting like Apelles nor Plastes, or Stattuary like vnto Miron or Policrates, neither in Physike like to Hippocrates, but yet in this and other not altogether ignoraunt. But yf a man myght be parfaict in al these sciēces as were Aristarchus, Samrius, Plulolaus, Architas, Tarentinus, Apollonius, Pergeus, Eratosthenes, Sireneus, Archimedes, Scopinas, (for all these were strögelly weaponed with al these sciēces before reherfed) he should be able to answer to all questiones therto appertaining. But I may pray as Vitruuius doth, saying, I pray O Caesar, and all other that rede this my writinges, if ther be any thing disagreeing to any of these sciences beare with me for I cōfesse my selfe (saith he) not to be parfaict in any of the other sciences. But he nameth him selfe to be an Architect, wherein he thinketh him selfe parfait, But I the setter forth of this treatise in Englishe, acknolage myself not to be a parfaict Architecte, (as he saith) nor yet Gramariā, & though I haue put my selfe in prease, it is not through the depe knowlaige aboue reherfed, but I do it for to put in vre an entraūce or beginning to them which be therein Ignoraunt, & desyre further knowledge in these thinges, as hereafter appereth by the declaracion hereof.

TRABATIONIS.

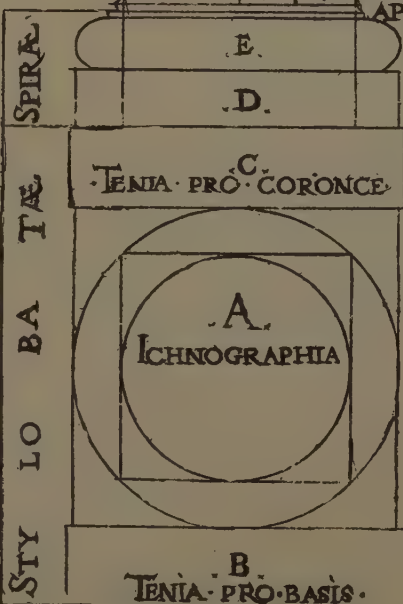


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TENIA PRO CORONCE

TENIA PRO BASIS

EPISTYLIUM

PLINTHVS ECHINVS ANNVLVS HYPOTRACHELIV

ASTRAGALVS

CAPITVLVS

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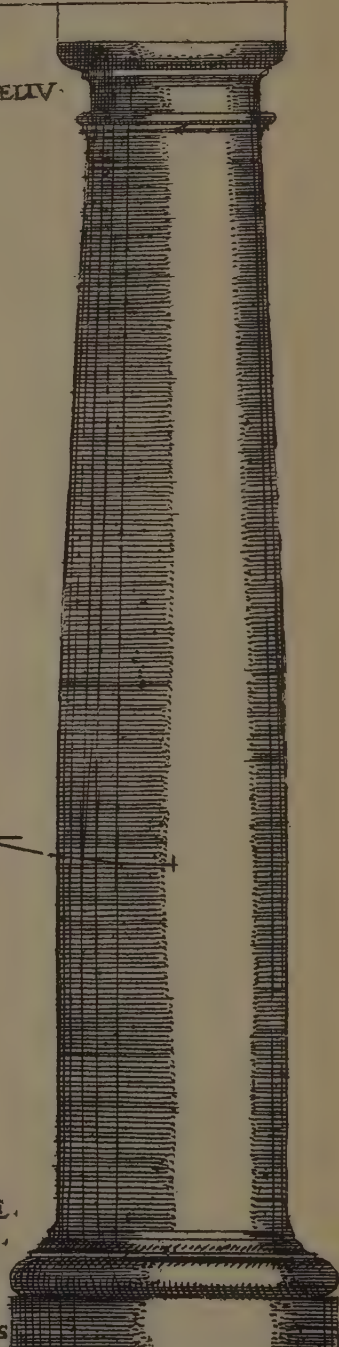
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LIMBUS SIVE APOPHYGIS TORVS

PLINTHVS



A N A

Of Architecture.

TVSCANA.

Volio.iii



He maner and forme of the five principall pillors, and their proper names with all their compoundes therto belonging and, their setting in their iust places by the order and rule of Symetria, and marked with the letters A. B. C. wherunto is made this piller Tuscana, as it is figured, inuented and made by the Ionians, vpon the Simetrie of a strong man. Renewed and found agayne by the Tuscanes and of them taketh his name.

THVSCANA.

The chiefe Groundes

TVSCAN A.



His pillor is the strögest and most able to beare the greatest of burtē of al the others. And that same his strēgthe cometh by his shortenēs, therfore he is likened vnto Atlas, kyng of Maurytania, and the piller is named *Tuscanā*, whose heyth must be with the Basis and Capitall. 6. times his thicknes in heighth. But if you will set *Stylobata*, or *Pedestate*, vnder the piller, Then shall ye begyne from the grounde vppwarde, euen after thys sorte. Ye shall make a foure square stone, like vnto a dye. The quantity of the square as great as ye wil, according to your purpose. Or ye maye drawe a ground plot on a table, In that square ye shall make a round compasse, so great as yt may be within that square, and then within that compas make an other square, and then within that square, make ye an other compas, the which compas shall be the iuste thicknes of your pillor. The which *Vitruuius*, calleth the Diameter, and then shall your vttermoſt compas be for the proiecture, or saylling out or hanging ouer of the foote of the pillor which *Proiecture* the Grekes do name or call it *Ecphoron*. Now the foote of the pillor, whiche is named *Basis*, or *Base*, whiche *Base*, strecheth out to the vttermoſt compas, and the square without that compasse is the iust bredth of the *Pedestal*, which is marked with. *A.* That bredth or heyth of that square deuide you into. 4. partes. Geue *Tenia* vnder marked with. *B.* so muche as one of these partes, for his iust heygth also. *Tenia*, aboue marked with. *C.* as much to his heyth: This donne, the *Pedestalle*, is. 6. such partes in his hole heygth, like vnto the pillor, whiche is. 6. Diameters in heght as is before mencioned, the which measures be plainly shewed in the middell pillor, which is your ground plotte, wherein is found the height, bredth and thicknes and also the proiectures of the holle worke. Thus I conclude an end of the *Pedestalle*, with his measures.

BASIS or SPIRA.



Now vpon the *Pedestalle*, which is marked with. *A.* you shall set your *Base*, or foote of the pillour being in height half the thicknes of the pillor, and that height ye shall deuide into. 2. partes. Geue one part vnto *Plinthus* which ought to be rounde, and is marked with this letter. *D.* The second parte geue vnto the height of *Torus*, marked with. *E.* with his *Apophigis*, whiche *Vitruuius* calleth *Limbus*. This *Proiecture* of this *Base*, shall stande out on either side of the pillor, so much as the one compas is greater then the other, as is before reherſed in making of the grounde plotte in the *Pedestalle*.

SCAPVS. or COLUMN A.



Vpon the foote of the pillor, directly & vpright set *Scapus*, whose macke is. *F.* the which *Scapus*, is the boddy of the pillor, and is. 5. Diameters in height, that is to say. 5. times his thicknes in height. The which thicknes vnder at the lowest parte of *Scapus*, you shall deuide into. 4. partes, wherof at the head of the *Scapus*, shall be. 3. So shall the pillor vnder the Capitall, be deminished the fourth parte: whear as al the other pillors are dyminished the sixte part. For the which pillor I haue found or inuented an other way in the dyminishing of it,

of it, than is declared for the diminishing of other pillors, the whiche hereafter followeth. Deuide the height of Scapus, into 3. partes. Vpon the lower parte standing on the Base, make halfe a compas, as greate as you maye, being within the thicknes of the pillor. Then draw downe right the thicknes of the pillor vnder the Capitall downe wardes vppon the thirde parte of the height of Scapus, wherupon was made the halfe compas. Then shall those 2. lynes make 2. crosse vppon eche side of the half compas, one crosse. Then measure from the crosse downe wardes euen by the side of the half compas, vnto the strike vnder the halfe compasse, and deuide it into 6. lines ouertharte the halfe compas and marke them also with. 1. 2. 3. 4. 5. 6. as you maye plainly see in your ground plotte. That done, take a payre of compasses and sette the one foote of the compas in the middell of the pillor, vnder the Capitall, and the other point of the compas ye shall bringe downewardes vntill ye come to the pricke, wher the halfe compas was made with, lette that pointe of the compas vnder the Capitall stande, and with the other point of the compas, drawe vpp wardes compassing from the thirde parte of the pillor vnto the height of the pillor, that the one parte of the compas be iuste as high as the other. Then haue ye made the rownde side or your quadrant: The whiche lyne so drawin shalbe deuided into 6. partes: whieh partes ye shall drawe ouerthwart the pillor, and marke them also from the Capitall, downewardes with. 1. 2. 3. 4. 5. 6. Then shall ye beginne after this manner and drawe from the end of the strike within the half compas, the which is marked with 2. vppewarde vnto the strike aboue marked. 2. to the lyne aboue drawen ouerthwarte the pillor, and also from the strike. 3. drawe vppward vnto the strike aboue marked with. 3. and so from. 4. to. 4. and from. 5. to. 5. and also from. 6. to. 6. The whiche lines leade downewardes perpendicularly. Then shall ye close vpp the side of the pillor, as I haue closed the one side, and left the other open that you maye see it and vnderstand it the better. Then take a rule and drawe from the smallest of the pillor, vnder the Capitall, drawing downewardes to the line. 2. the whiche is drawen ouerthwarte the pillor and so drawe from. 2. downewardes vnto. 3. and also from. 3. to. 4. from. 4. to. 5. from. 5. to. 6. So haue you diminished iust the 2. third parts of the height of Scapus. I say not that you shoulde vse iustely no more but these 6. lines vnto the diminishing of this pillor and these other pillors following, I do but shewe you by this briefnes the playne and true waye: by the which waye notwithstanding ye may occupie so many lines as shalbe nedefull. The more in number, the perfecter shall the diminishing be. Nowe at the toppe of Scapus, you shall make Astragalus and Apophygis, marked with G. and shalbe high the sixte parte of the Modulus, that is the twelfth part of the Diameter. That part you shal deuide into 3. partes, wherof geue the 2. highest partes to Astragalus, and the third vnto his Apophygis, also byneth at the foote of Scapus, ther is a square edge or Apophygis inferior being in height so muche as the height of Astragalus, that standeth at the top of Scapus, their proiectures be like vnto their heightes.

Capitall or CAPITVL I.



Pon the body or toppe of the pillor, the hedde or Capituli shalbe set, being in height one Modulus, that is to say halfe a Diameter, that height you shall deuide into 3. partes, geue the one parte to Hypotrachelium, marked with H. The second part ye shal deuide into 4. partes. Thre of the ye shal geue to Echinus, marked with I. the fourth part geue to Annulus, also that parte which remaineth geue to Plinthus which is the highest parte,

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whose

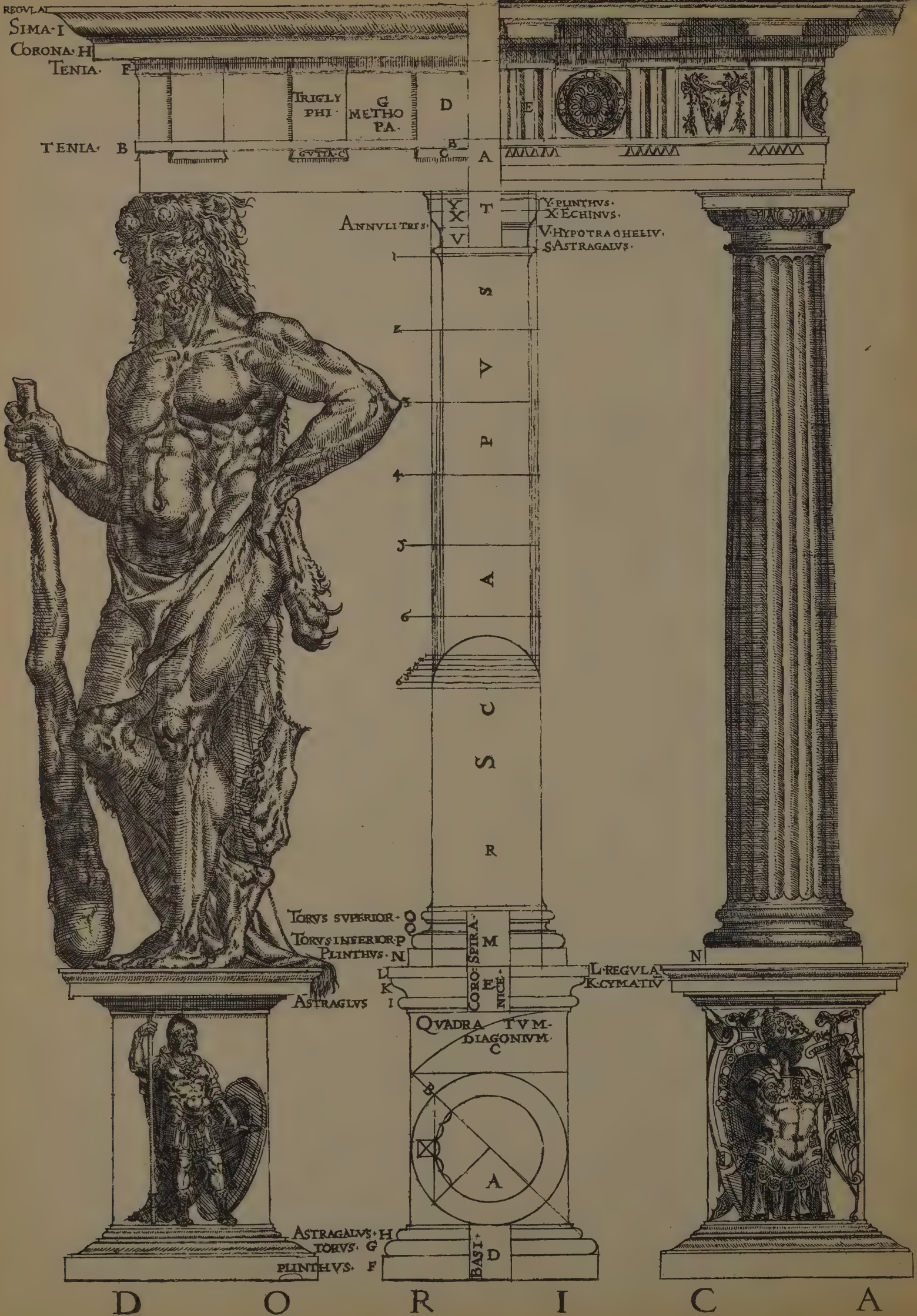
The chiefe Groundes

whose marke is K. the Proiecture or hāging ouer shalbe so muche as the pillor is diminished on eche side the which is corresspondent to the thicknes of Scapus beneth. Thus writeth Sebastian Serlius, of the proiecture of this Capitall. Neuertheles I haue sene in some places in Italie that the Proiecture, haue bene like to their height, by cause the pillor is so muche dyminished. it should be therefore the more cōmely to haue the greater Proiecture, and yet shall those two wayes not differ muche one from the other. But yet of these two wayes let vs take the moste faire. I haue also sene this pillor so placed that it hath bene. 7 Dyameters in heigthe, where as he supported no other pillors but his owne Trabiacions. So endeth the forme and measures of the Capitulum.

EPISTILIVM.



Pon the Capitall shalbe layde or set Epistilium, named also Trabes called in oure English tonge the Architraue the which is marked with L. and is a modulus in height. The which height ye shal deuide into 6. parts wherof Tenia, to be the sixte part, & the other 5 partes is for Trabs. So done vppō the Epistilium you shal set Zophorus being also a Modulus, in height and is marked with M. vppon Zophorus, shalbe set Coronix being in height also a Modulus, & that height you shall deuide into 4. partes. geue one part vnto Cimatū vnder Corona marked with N. but the other side of it is called Tenia, and geue likewise 2. parte. vnto Corona marked with O. & the fourth part which remaineth geue vnto Cymatū ouer Corona which is marked with P. In Corona ye shal make Denticulos, the which are made like teethe and their Proiectures, shalbe like vnto their heightes, sauing only Corona which hangeth his height and halfe his height ouer. And thus endeth the mesures of the pillor called Tuscana. Now ye shal vnderstand, that the pillor which standeth in the myddell is your ground plotte, but the other whiche standeth by him, is made vpon the self same measure but that it is otherwise garnished. whiche garnishmentes bring other measures for them. And as touching this pillor, I shall begin from the lowest parte of the Pedestall being Tenia inferior, deuiding his height into 8. partes. Geue 3. partes vnto Plinthus & 4. partes geue also to Sima reuerſa, and the eighthe parte remaineth for the small edge vpon Sima. vpon the whiche is sette the bodye of the Pedestale also the vpper Tenia ye shall deuide his height into 5. partes geue 2. partes vnto Hypotrachelium, and also 2. partes vnto Cymatium, and the fiste part geue vnto his edge at the toppe of the Pedestale, nowe Basis, or Base, belonging to the sayde pillor is the height of a Modulus, or half the thicknes of the pillor, whose height ye shall deuide into 2. partes. Geue Plinthus one parte, and the second part deuide you into 3. partes Geue 2. partes vnto Torus, and the third part deuide also into 3. partes. Geue 2. partes to Sima and the third parte ye shall geue the edge vnder Sima. So endeth the mesures of the Basis or Base, vpon the which Base shalbe set Scapus, or the body of the pillor, made after the maner & order as before is mentioned vppō the which shalbe set the Capital the one Capital is like to y other sauing that it hath vppō Echinus a litle edge, which seteth forth Plinthus with a more beautiful Proiecture. As cōserning y Architraue or Epistiliū, that is, as before reherced a Modulus in height, which height ye shal deuide into 6. partes. Tenia, occupieth y sixt part, y other 5. partes ye shal deuide into 2. partes. Geue one part vnto y half of Trochilus the other part is left for y flat square, that resteth vpon the Capital & so endeth y Epistiliū. Now as touching y fries or Zophorus, being also a Modulus in height, as is before reherced of the other, is like vnto it but that this swelleth oute
ward



wardes the fourth part of a rownd compas, that is drawen aboue a square being the height and bredth of a modulus wherwith endeth Zophorus, vpon the whiche shalbe sette Coronix, the one side is like vnto the other in the mesures, but that in this side Cymatium is set vnder Corona, and vpon the other side Tenia is set vnder Corona, being of one heighte. This done and finished according to this rule, so endeth the mesures and garnishmente of the first pillor called Tuscana.

Nowe for as moche as that you haue vnderstanding howe all the partes of this pillor & the rest of the pillors that shalbe, hath theyr mesures, ornatures and names, finished out of Icnographia or ground plot vpwordes to the very top of the same worke, wherefore I thought it good for the more perfection and exercises of the gentell reader to make a Reherfall of all the partes and passelles downwardes agayne endyng in Icnographia where I began first, these be the names **T R A B E A T I O N I S**. Cymatium, mar. P. Corona, mar. O. Tenia mar. N. Zophorus, mar. M. Tenia in Epistylum, mar. L. **C A P I T V L I**. Plinthus mar. K. Echinus, Et Annulus mar. I. Hy-
potrachelium mar. H. **C O L V M N A** mar. F. Astragalus marked. G,
Apophiges superior & inferior, **S P I R A** siue **B A S I S**. Torus
mar. E. Plinthus mar. D. **S T Y L O B A T Æ**. Tenia pro
Coronice mar. C. Tenia pro Basis mar. B. Ichnogra-
phia mar. A. being the perfecte square or
ground plot the beginning and founda-
cion of this worke.

C.ii

D O R I C A,

The chiefe Groundes
HERE FOLLOVETH THE MANER AND FORME
of the secound pillor called Dorica, being ascribed to Hercules and Mars,
for his strength, accordinge to the rule aforesayde.



His pillor called Dorica, shalbe .7. Diameters in height, with the Base, and Capitall. Now if ye will set Stylobata, or Pedestal, vnder your pillor, thus ye shal begin. First you shall make a foure square, which shalbe your ground, the which is in my figure marked with A. and then draw a lyne ouerthwart from the one corner to the other, which lyne is called Dyagonalis, and is marked with B. and that lyne being directly vpright set, one ende shalbe the height of the square or body of the Pedestall marked with C. measure and deuide that height into .5. partes the which height of the Base, of the Pedestall, shalbe as muche, as one of the .5. partes whiche is marked with D. and admitte also as muche vnto the Coronix of the Pedestalle marked with E. so that the Pedestale is .7. suche partes in height like vnto the pillor, which is .7. Diameters, in height. The height of the Basis of the Pedestale which is marked with D. shalbe deuided into .2. partes the lowest part is for Plinthus, marked with F. the secound part deuide into .5. partes. Three of those partes geue vnto Torus, marked with G. the other .2. partes shalbe deuided into .3. partes, geue .2. partes vnto Astragalus, marked with H. the third parte is lefte for the edge which Vitruuius calleth Regula, the Proiecture, of eche side of the Base, of the Pedestall as Vitruuius saiet shalbe halfe a Modulus, but the antiques haue made their Proiectures like vnto their heightes. Then deuide the height of Coronix marked with E into .3. partes geue one vnto Astragalus, with his Regula, marked with I. the other .2. partes deuide into .3. partes admitting .2. of those partes to Cymatium, marked with K. and the thirde parte thereof is lefte for Regula, whose marke is L. the Proiectures of the same is like vnto their heightes. Thus endeth the Pedestale or Stylobata.

SPIRA SIVE BASIS.



Pon the Pedestale, you shall set Spiram which is the fote or Base of the pillor and is marked with M. being a Modulus in height. that height deuide into .3. partes one of those partes is for Plinthus marked with N. the other .2. partes deuide into .4. partes. one of them shalbe for Torus, aboue marked with O. The other .3. partes that remayneth deuide into .2. partes, one of them geue vnto Torus, vnder marked with P. the rest is admitted vnto Trochitus, marked with Q. and eache of his rules, to be either of them in height the seuenth part of that hole measure or parte. The Proiectures of the whole Basis, shalbe halfe a Modulus, on eche side, and thus endeth the mesures of the Basis.

SCAPVS SIVE COLUMNÆ.



Pon Spira, or Base of the pillor ye shal set Scapus, marked with R. being the tro-
nike or body of the pillor the which is in height .6. Diameters. The thicke-
nes of the pil-
lor at the fote is deuided into .6. partes: and vnder the Capital, it is diminished one
of the .6. partes that is halfe a parte on eyther side, and the .5. partes which remaine,
be for

be for the thicknes of the pillor vnder the Capitale. From the whiche thicknes ye shall drawe downe perpendicularly vnto the third part of the height of Scapus, wher vpon is made the halfe compas the which. 2. lynes shal make. 2. crosses on eche side of the half compas one. Then measure from the crose by the side of the halfe compas vnto the lowest part of the half compas and deuide the same into. 6. partes drawinge them ouerthwarte the halfe compas from the one side of the pillor vnto the other marking the endes of the lynes with. 1. 2. 3. 4. 5. 6. then measure from the ouerthwarte lyne vnder the halfe compas, deuinding vppwardes to the highest of Scapus into. 6. partes The which shalbe drawne ouerthwarte the pillor, the highest ouerthwarte line at the toppe of Scapus, marking that lyne with 1. on and so the other downewardes with 2. 3. 4. 5. 6. Then the strike marked with. 1. one vnder the Capitall is drawn downe on bothe the sides vnto the lyne that ledeth to the half compas, whiche is also marked with one. Then drawe downe righte from the strike. 2. whiche is drawin ouerthwarte the pillor at the toppe vnto the other lyne, which leadeth to the half compas. 2. and so downewardes from. 3. perpendicularly to the other lyne or crose marked with. 3. and so directly downewardes from. 4. to. 4. frō 5. to. 5. and so likewise from. 6. to. 6. That done, take a rule, and drawe frō the 2. strikes which are the thicknes of the pillor vnder the Capitall to the end of the vpright lyne marked. 2. which stayeth that lyne which is drawen ouerthwart the pillor marked also. 2. and drawe from. 2. to the end of the vpright lyne marked. 3. and so likewise from. 3. to. 4. downewardes: and so from. 4. to. 5. and from. 5. to. 6. So done ye haue closed vp the sides with the diminishinge of your pillor as ye may perceiue by your ground plot, the other side is leste vnclosed, wher ye may perceue, where the lynes do stoppe, whiche be drawne vppwardes out of the half compas. The other side of the pillor I haue closed because ye shuld see it and the better vnderstand therby how to close and finish the diminishing of the pillors. At the toppe of Scapus, or Pillor, right vnder the Capitall is made Astragalus with his Regula being in height the sixte parte of Modulus. The which Regula, shalbe halfe so much in height as the height of Astragalus, marked with S. whose Proiectures, shalbe somuch as the pillor is diminished on eche side a like. If your pillor shall haue Canaliculos, there must be of those. 20. round about Scapus, so done make a square so greate, as one of those. 20. partes, then drawe from corner to corner ouerthwart the square, making a crose in the mydell of that square. Then take a payre of compasses and set the one ende of your compasses in the middell of the crose, and draw with the other pointe of your compasses al a long by the side of your square frō the one corner to the other, compassing the same quarter as more plainly doth appere by your ground plot marked with A. the whiche at the right Canalicoli, Beneth at the foote of Scapus, lieth Regula, being of the same height that Astragalus is of at the toppe, and so endeth Scapus.

CAPITAL.




Ppon the toppe of Scapus, you shall set the Capitall or hedde of the pillor marked with T. and is in heighth a iust Modulus, that height deuide into. 3. partes Geue one part vnto Hypotrachelium marked with V. and the second part deuide into. 3. partes. 2. of those shalbe for Echimus, marked with. X. the rest is leste for the. 3. kinges which be called Apophiges, or. Anuli, Now the thirde and higheste parte, deuide you also into. 3. partes wherof. 2. of those partes shalbe geuen to Plinthus marked with. I. the thirde parte,

The chiefe Groundes

whiche remaineth, geue to Cymatium, and his rule or Regula, which Regula, shalbe the thirde parte of that, which remaineth and lieth at the toppe of the Capitale. The Proiecture of this Capitale, shalbe correspondent with the proiecture of the Plinthus, at the foote of the pillor, and is marked with N. the whiche Proiecture, is obserued of the Antiques, in the sayd pillor, which is already finished and standeth by. Howbeit Vitruuius writeth it to be made after this sorte, to wit, that the Proiecture of the Capitale shalbe the twelue and sixte parte of a Modulus. Thus is finished the Capitale with all his Proiectures.

EPISTYLIVM.

 Pon the Capitale, shalbe set Epistylum marked with A. the heighth therof shalbe a Modulus that height ye shall deuide into .7. partes. Geue Tenia, marked with B. the seuenth parte, and geue Subtenia, and Gutta, pendante marked with C. the sixte part of a modulus to their height and that part deuide vnto .4. partes, Geue .3. vnto Gutta pendant being .6. in number, the fourth part shall be for the edge or Regula in Epistylia vnder Tenia.

ZOPHORVS.

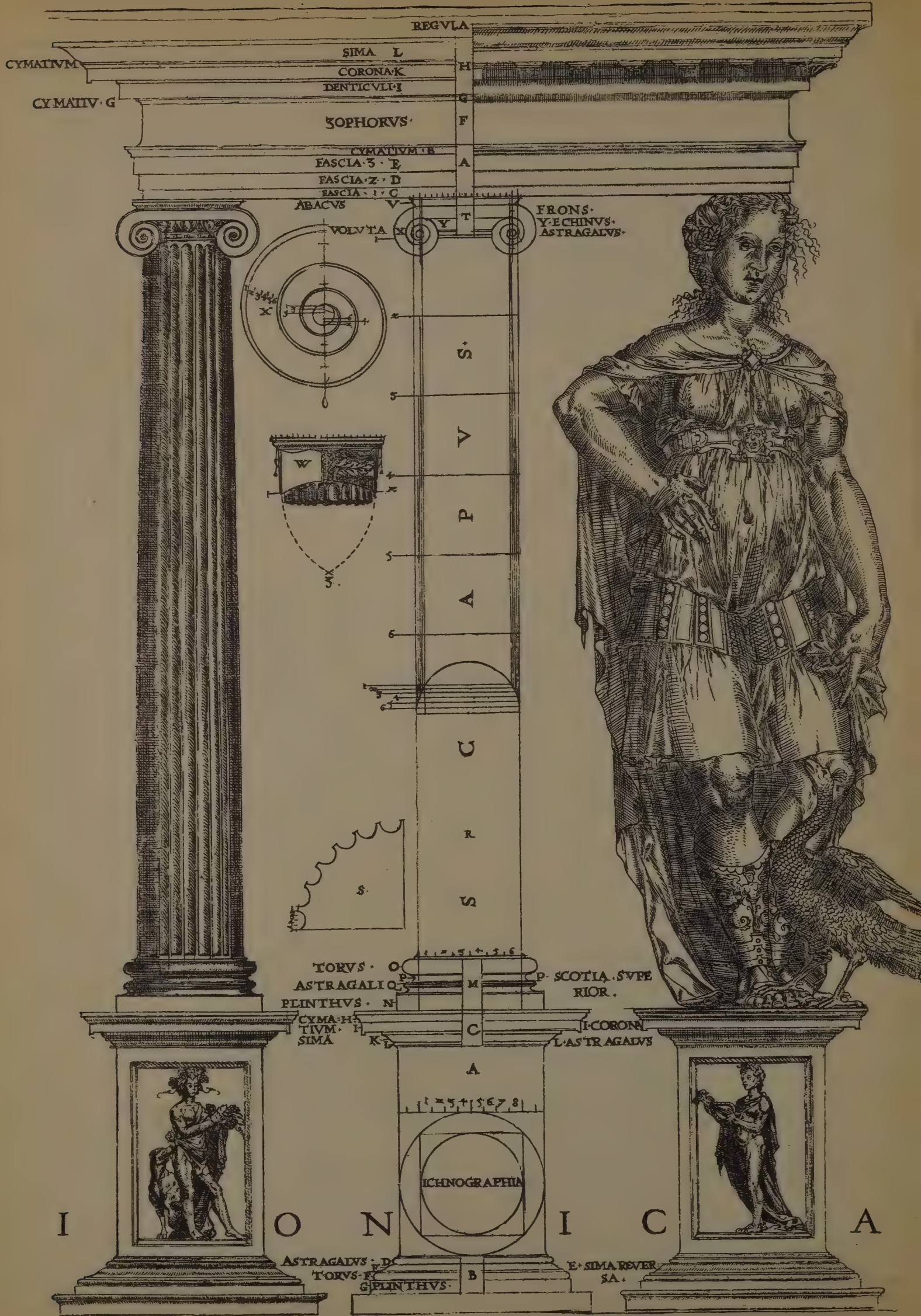


Pon Epistylum, shalbe set Triglyphi, marked with D. whose height must be a Modulus and a halfe. Also the bredth therof shalbe a Modulus, and that bredth you shall deuide into .12. partes Geue .1. of those vnto eche one of the Semicanalicoli, the which stand on either syde of the Triglyphi, so remayne yet .10. parties and .6. of those shalbe for Strie, or the flath whiche are marked with E. the other .4. partes are left for the Canalicoli, standing vpright wiche in the Triglyphi, wher vpon ye shall set his Capitale, which also is called Tenia, being in height the sixte part of Modulus and marked with F. Bitwixte the .2. Triglyphos, you shall set Methopa, marked with G. being square so high as it is broad: and in that square shalbe made a bulles head, his hornes bound about with rybandes garnished with branches flowers and Iewelles, hanging at the endes of the Ribandes. In euery second Methopa, ought to be made a faire basone or flat peace, the which inwardely should be garnished but I am not hable to set fourth the bewtye therof in so small a figure.

The highest parte of TRABEATIONIS, called in English a Cornishe.



Vitruuius teacheth vs that the height of it shuld be a Modulus, and that you shall deuide into .2. partes the lowest parte deuide into .5. partes, Geue .1. to Cymatium vnder Corona also .1. other vnto Cymatium aboue Corona, the other .3. partes geue vnto Corona, whose marke is H. that second parte which remaineth of the Modulus ye shall geue vnto Syma, marked with I. Then adde the eight part of a Modulus, to be the height for his edge or Regula, aboue Syma the proiectures to be like to their heightes, sauing that the Proiecture of Corona, must be twise his height by cause in it must be made, the order of Gutta, being right ouer Triglyphi, they shalbe, 18,

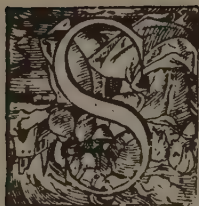


be.18.in number.6 the one way and.3.the other.Right ouer Methopa,the Antiques vsed to cut in Corona Iupiters mark of the thunder bolte.Thus endeth the opinion of Vitruuius in these thinges.Neuertheles as ye mayperseue by the muller or Coronis,of the antiques that stādeth on the right side wherunto they haue added Echinus,and Denticuli, with Apophigis or rule & garnished it after many beautiful facions bringing their worke to a great height,the which height causeth a fairer Proiecture,which was for y further setting fourth of their workes & was pleasant to the beholders therof.If it be a gate house or gallery of pleasure hauing Ionica, or Corinthia,of him supported or standing by him:then ought heto be richly garnished But if he stande in the gate of a citie or castel by force or strength,then ought he to be made with those strong measures,which are ascribed vnto him standing in the place of Mars,& Hercules whā he standeth with the other pillors he is like vnto Minerva ,and therefore haue respecte vnto his place.

Hus hauinge finished all the measures ending now att he highest of *T R A B E A T I O N I S*. I shall name al the partes and parßels with their markes whereby is knowne the thing that is wrighten or spoken of to the cleernes or opening of matters, and an excercise for the reader to know the names by,I haue more at large spokē of this matter in the ending of the Tuscan piller,therfore I shall begine in *T R A B E A T I O N I S*. *REGVL A*. & Sima,marked with I. Cymatiū,& Corona,marked with H. Cymatiū inferior (Echinus Regula,Denticulos)added Tenia,marked with F. Triglyphi,marked with D. Methopa,marked with G. Tenia,marked with B. Regula and Gutta,marked with C. *C A P I T V L I*,marked with T. Regula Cymatium Plinthus,marked with Y. Echinus marked with X. Annulitres. Hipotrachelium,marked with V. *C O L V M N A* or *S C A P V S*. Apophiges Superior & Apophiges inferior,marked with R. *S P I R A* or *B A S I S*,marked with M. Torus superior,marked with O. Regula. Scotia,marked with Q. Regula. Torus Inferior,marked with P. Plinthus,marked with N. *S T Y L O B A T A*. Coronix marked E. Regula,marked with L. Cymatium,marked with K. Astragalus,marked with I. to the antike pillor is added Corona,Regula,and Sima, Quadratum, Diagonium, marked with (. the diagonall line marked B. Ichnographia,or ground plot marked with A. *B A S I S*,marked with D. Regula, Astragalus,marked with H. Torus,marked G. Plinthus marked F. in the finished pillor or *B A S I S*,is as followeth Regula Cymatium reuerfa.Regula Sima. Reuerfa Regula,Plinthus, which maketh an end for this piller.

20 I O N I C A,

The chiefe Groundes
THE MANER FORME AND ORDER
of the Symetria, or measure of Ionica, whiche was deuised by the
Ionians and set in the temple of Diana.



Tylobata, or Pedestale of Ionica, you shal make the boddy therof after this sorte. The flat stone, which is marked with A. shalbe a square and a halfe in height, and that height you shal deuide into 6. partes, & adde therto such an other part for the height of the Base of this Pedestale which is marked with B & set also such an other like part for the height of the Coronix of this Pedestale marked with C. So done, y^e Pedestale is 8. partes in height, y^e height of the base marked wth B ye shal deuide into 5. partes. Geue 1. part vnto Astragalus & his Regula, marked with D. the which Regula, occupieth the third parte of that one parte. Geue also to Sima reuerſa, with his edge marked with E. one parte, wherof his Edge occupieth the third parte. Then ye shall geue an other parte vnto Torus, marked with F. and the other 2. partes you shall geue vnto Plinthus, marked with G. The Proiecture of them shalbe like vnto their heightes. Now the height of Coronix, marked with C ye shal deuide into 10. partes, wherof you shall geue 3. vnto Cymatium, and his Edge marked with H. and also geue 3. partes vnto Corona, marked with I and also geue 3. vnto Syma, marked with K. the tenth parte is left, for the Astragalus & his edge marked with L. The Proiectures be like vnto their heightes but that Corona doth saile ouer twise his height. Though this pillor and al other pillors if it were so that they had double Plinthus, it should not be without good cause, for the antiques haue made three Plinthus, one aboue an other, the occasion wherof is this, that the carthe should not ouer growe the Base of the Pedestale, and so hyde the chief thinge wherupon do reſte the whole ordenaunces yea and in many other places, they are necessary the which al Architectes, and masters of buildinges ought to knowe, and many moo of those and such other ought to be knowen of them of necessitie. The occasion or cause for the whiche I haue begonne this order or rule, first with the Pedestale, (the which rule differeth from Vitruuius, for he beginneth first with the pillor, neuertheles they come to one purpose in the perfection) is for this, that firste in my Pedestale, I haue drawen the ground plotte, whiche the Greekes call Ichnographia. For that same house or building cannot stande or endure whiche hath no good foundation. So this is the foundation through the whiche we knowe and finde all the measures and vprightes belonging to the pillor. In it is also found the Trabiations, the height of the Pedestale, and the bredth therof, also the height of his Base and Coronices, and the Diameter and the thickeſnes of the pillor aboue vnder the Capitalle, and likewise the heighte of Spira, or Base of the pillor: and the height of Scapus, and also the height of his Capitale, with all the whole Proiectures, and measures whiche isſueth oute of this Ichnographia. Now to come to the right vnderstandinge of these measures before reherſed, ye shall beginne thus. The bredth of the square, whiche is the bredth of the Pedestale, marked with A. you shal deuide into 11. partes wherof. 8. shalbe the Diameter, or thickeſnes of the pillor the whiche pillor in height shalbe. 8. Diameters, with the Base and Capitalle, the whiche heighte of the Capitale, occupieth the third part of the Diameter, and the Basis marked with M. shalbe halfe the thickeſnes of the pillor in height, thus writeth Vitruuius, in his third booke and third Chapter

Basis

BASIS.

THe Basis, or fote of the pillor shalbe a Modulus in height: which is marked with M. that height you shal deuide into. 3. partes, geue one part vnto Plinthus marked with N. that which remaineth deuide into. 7. partes geue. 3. vnto Torus, marked with O. the other. 4. partes deuide into. 16. parts, geue Trochilus superior with his Astragali and rules. 8. of those partes, wherof Trochilus, occupieth. 6. partes, vnto the highest Astragalus and his edge shalbe geuen a part and halfe a part, & vnto the litle edge vnder Torus. geue also halfe a part, which maketh vp the rest of the. 8. partes. The other. 8. partes geue vnto Trochilus inferior, and deuide them also as is before rehersed. The Proiecture, of the Plinthus must be the eighthe and the sixteenth part of the thicknes of the piller which is the sailing out on each side of the Base of the pillor and doth answer vnto the bredth of the body of the Pedestale, and is agreeable with the forsaide ground plot. The Antiques haue made also a base, which differeth not farre from the declaration of Vitruuius and after this facion they haue ordeined their Base y height therof to be a Modulus, and that height deuide into. 1. partes, wherof geue Plinthus one part, as before is taught by Vitruuius. Then that, which remaineth deuide also into. 3. partes, wherof the highest part shalbe geuen to Torus, the other. 2. partes which remaine, deuide either of the into. 6. parts wherof the highest Astragalus & his rule occupieth. 1. part, the which rule is halfe the height of Astragalus, also the edge, that lieth vnder Torus shal be halfe a part in height, and that which remaineth is for Trochilus superior, wherwith finisheth the first. 6. partes. Nowe geue also. 1. part to the lower Astragalus and his Edge The lowest edge that standeth vpon Plinthus shalbe in height halfe a part, the. 4. partes and a halfe that remaine, shalbe left for the Trochilus inferior. The Proiecture of the Plinthus is before rehersed, but because this Torus is sklanderer then that, the which Vitruuius speaketh of, it bringeth a more bewtifulnes to the Proiecture, which can not be here expressed as any man of knowlaige will confesse.

SCAPVS.

VPon the base you shal set Scapus, marked with R. being. 7. Diameters in height and therto adding the sixte part of the Diameter The which height of Scapus ye shall deuide into. 3. partes vpon the third parte make halfe a compas, then deuide the thicknes of the pillor beneth into. 6. partes. 5. of those partes shalbe the thicknes of the pillor or Scapus, at the toppe, that is halfe a part diminished, one either side of Scapus, from thence drawe downe right one both sides vnto the third parte of the pillor vpon the which is made the halfe compas The whiche. 2. lines maketh. 2. crosses vpon the halfe compas, Then measure from the croffe downewardes euen a longe by the side of the halfe compas, that standeth vpon the third parte of the pillor deuiding it into. 6. partes and drawe these lines ouerthwart the halfe compas and marke the vpper line with. 1. and so marke downewardes the next with. 2. and so with the reste as followeth. 3. 4. 5. 6. then deuide from the lowest of the halfe compas vpwardes vnto the toppe of the pillor vnder the Capitall, also into. 6. partes drawing them ouerthwart the pillor and marke them also downewardes with. 1. 2. 3. 4. 5. 6. or deuide it into so many parts, as you will, the moo, the better, & the parfaictter you shall diminish your pillor. Then shal ye begine after this maner & draw fro the strike. 2. downewardes vnto the strike & croffe, which

D.j.

is drawin

The chiefe Groundes


is drawn ouerthwarte the halfe compas, and is also marked with 2. and drawe also from the strike 3. y^e which hath also a crosse made vpon the halfe cōpas, drawing vpwardes vnto y^e strike marked with 3. the which is drawn ouerthwart the pillor above, & so drawe from 4. to 4. from 5. to 5. and from 6. to 6. The line vnder the Capitall, at the toppe of the pillor marked with 1. from thence drawe with a rule downeward: s to the ende of the vprighte line, which staieth at the ouerthwart line marked 2. closing vp the side of the pillor, and from 2. vnto 3. downewardes, and also from 3. vnto 4. from 4. vnto 5. and from 5. vnto 6. Then is that side full finished and made vpright. At the foote of Scapus, is a littell small edge, standing vpon Torus whose height shalbe the ninth part of Modulus, wherof his Proiecture shalbe of like height. Also at the toppe of the pillor lieth Astragalus and his fillet being half so high as the Astragalus, & also above the Astragalus is a littell Edge, the which belongeth to the Capitall. The measure of his Astragalus and his Edge, which belongeth vnto Scapus is found out be the litel cōpas, which is the eye of Voluta, whose marke is X. if the pillor shalbe garnished with Canalicoli ther shalbe in number 24. 1. ounde about the pillor or Scapus, and euery of them deuide into 5. partes. 4. of those partes is the bredth of Canalicoli, and the fifth parte is for Striae, which are also called Femora. The ground plotte therof standeth besid the pillor which is marked with S. wherin ye may see the maner or making of Canalicoli, being half a compas in wardes, the which differeth far from the order of Dorica, as it appereth by your ground plotte. Thus endeth the maner and making of Scapus, with his mesures.

CAPITAL.

Directly and right vpon the top of Scapus, you shall set this Capitall following, whiche is marked with T. being in height the third part of a Diameter, the bredth of the Abacus marked with V. is a Diameter, & therto also adde, the eighteneth part of a Diameter. That same part deuide into 2. partes The which 2. partes shalbe set one parte on eyther side of the Abacus, the whiche shal aide the Proiectures: so done Abacus is the in bredth. 19. partes, then tel from the vttermost part of Abacus in wardes, one part and a halfe of those 19. partes and there drawe a strike downe right perpendiculerly, as ye maye perceue by your figure here expresse^d whiche on both sides of the Capitall, hangeth a line with a plommett at eche ende. Then deuide the hanging line from the highest of the Abacus, downewardes into 6. partes a and half of such measure as is before rehearsed, wherof the height of y^e Abacus is one & a half, of the which remaneth yet 3. partes on the hanging line, the which partes shal serue for Voluta, marked wth X. & those parts shalbe thus deuided. Betwixt the Abacus & the litell round Cōpas shalbe 4. parts & beneth the litel cōpas is 3. partes and the compas it self is also 1. part. That part, which is the litel cōpas ye shal deuide his height into 6. parts Then take a paire of compasses and set the one point of the compasses in the toppe of the small compas whiche I haue marked with 1. & the other fote of the cōpas ye shal set vpon y^e line vnder the Abacus, & then turne the compas aboute & drawe downewardes vnto the lowest of those 3. partes belonging to Voluta, vntil ye come to the line wher at the plomet doth hang and there stay with that point of the cōpas, & bring the other point of the cōpas downe vpon y^e lowest strike of y^e litel cōpas, which is marked wth 2. The turne vpwards y^e lowest point of the cōpas vntil ye come to y^e hanging line, wher ye shal stay. The other fote ye shal set vpon the strike marked 2. being within y^e litel cōpas. The cōpassing about wth y^e highest part of the cōpas downwards vntil ye come againe to the hanging

hāging line and so remoue the highest part of the compas setting it on the strike. 4. within the litle compas, and drawe vpwardes with the other pointē of the cōpas vntill ye come to the perpendicular line, staing againe there and then set the other foote of the compas right vppon the strike marked with. 5. also being within the litle compas, and drawe downe wardes againe vnto the forsayde line, and so set the highest pointē of the compas vppon the strike marked with. 6. being also within the litle compas. Then drawe with the other pointē of the compas vpwardes againe which doth inclose the litle compas. In the which cōpas may be made a rose or some other flower. Then shall ye perceue that the *Astragalus*, and his. 2. edges are lūste the height of the litle compas, which is the eye of *Voluta*, and then shall the height of *Echinus* be. 2. of those parts that *Voluta* was made with, the whiche *Echinus* is marked with I. also that space that lieth between *Echinus*, & *Abacus* shalbe. 2. of those parts in height. So done ye haue y trewe height & bredthe of y forfront & face of the Capitall. It is also nedefull to know how to forme & facion the side of the Capitall, The maner & facion therof standeth betwixt the. 2. pillars. The *Abacus*, that lieth vpon *Voluta*, is iust. 4. square fiat like to a trencher, the *Proiecture* is as muche as one of the. 19. partes on eche side of the *Abacus*, from the which ye shall draw downe the. 2. sides of *Voluta*, which is. 8. of those partes, the. 2. Edges that stand on eche ende of the Rolle or *Voluta* shal haue. 1. part betwixt them both. The take a paire of cōpas & set the one pointē of the compas at the lowest and inner parte of the litle edge marked with. 1. and bring the other pointē of the compas into the innermost corner of the other edge whiche is marked w. 2. drawe from thence downewardes to the figure 3. then set the pointē againe in the place marked with. 2. & drawe with the other pointē of the cōpas downe to this figure. 3. againe, and it shall make a croſſe, vppon that croſſe, set the one pointē of the compas, & with y other pointē of the compas draw from the strike marked w. 1. vnto the other strike marked with. 2. & it wylle shew you the diminishing of *Voluta* in the middel, through which diminishing you shal perceue the endes of the *Canaliculi*. So done the side of the Capitall, is twise so bi oade as it is in height, the *Proiecture* of *Echinus* is like and equall with the *Proiecture* of *Regula* at the foote of *Scapus*, and so ende the *Proiectures*, and mesures of this Capitall also the. *Antiques* in diuers of their edifices, hath made *Echinus*, to be in *Proiecture* like vnto *Abacus*.

EPISTILIUM.

 Ver the Capitall or hed of the pillar ye shal set *Epistilium*, or *Architraue* whose marke is A. the height therof shalbe a *Modulus*, and that height ye shall deuide into. 7. partes, one of those ye shall geue vnto *Cymatium* marked with B. his *proiecture* is like vnto his height. The other. 6. partes ye shal deuide into. 12. partes geue. 3. vnto the lowest *Fascia* marked with C geue. 4. vnto the second *Fascia* marked w D. & also geue vnto the third *Fascia* the. 5. partes which remaineth, the which is marked w E. whose *Proiecture* or hanging ouer shalbe right and Equall with the thicknes of the pillar byneth the above the Base. Now vnderstand that the *Proiecture* of these. 2. highest *Fascias* shalbe so muche as the pillar is diminished vpon the one side vnder the Capitall the which is the twelfth the part of the diameter, the which part you shall deuide into. 9. partes, geue. 5. vnto the highest *Fascia*, marked with E. for his *Proiecture*, the other. 4. partes shal serue for the *Proiecture* of the middle most *Fascia* marked with D. the lowest *Fascia*, findeth his owne *Proiecture* as before is reherſed.

Dij:

zophorus.

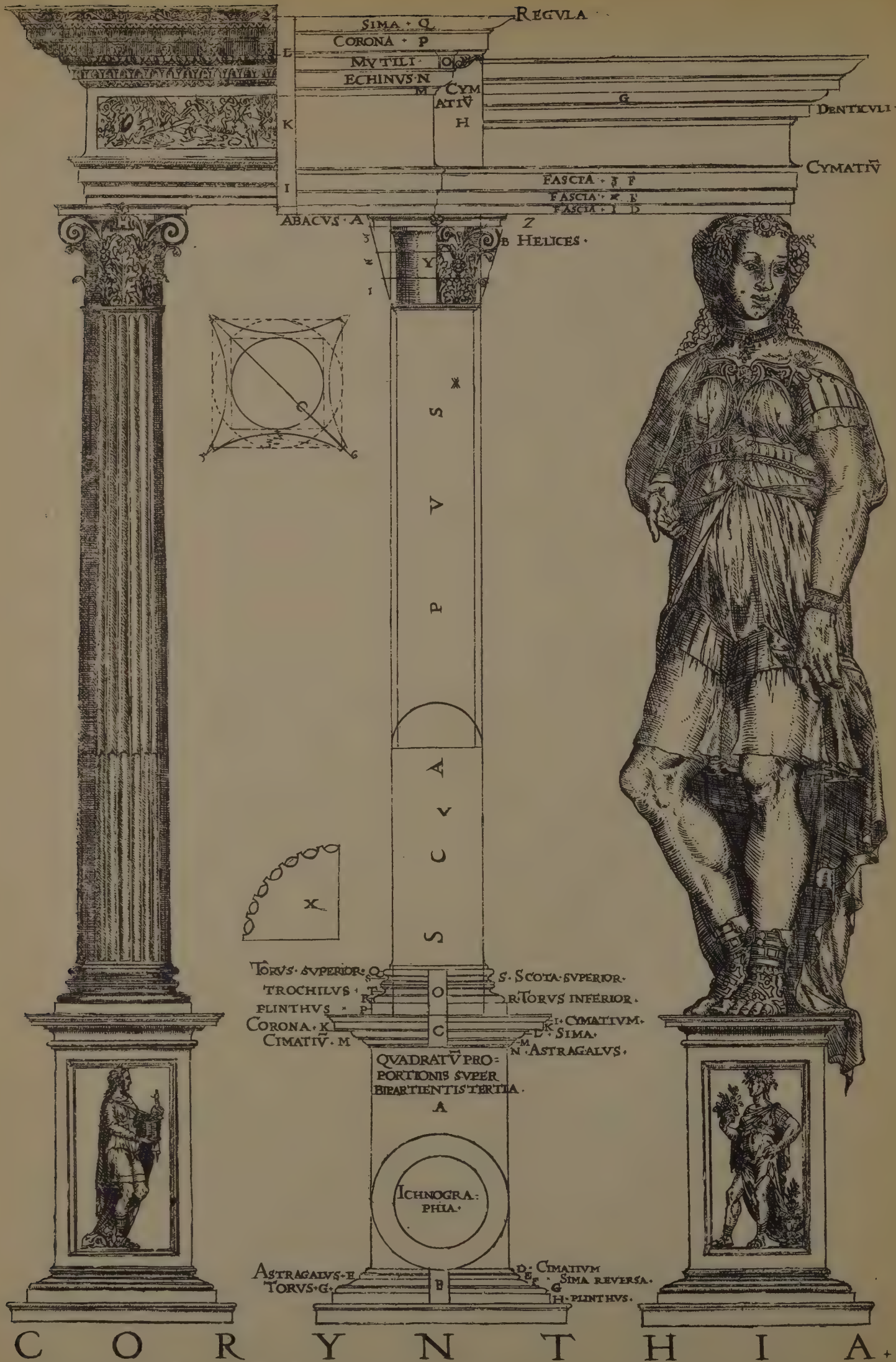
The chiefe Groundes
ZOPHORVS.

VPon the Epistiliū, ye shall set Zophorus, which is called in our Englishe tounge the frize. If any thing shalbe therein grauen or cut, then it ought to be y fourth part higher the the Epistiliū. If nothing shalbe wrought win y Frize the shal y frise be the fourth parte smaller then the Epistiliū, Then deuide the Frize marked with F. into .7. partes, one such parte adde therto for Cymatium, marked w G. let his Proiecture be also as muche as his height. That donneye shall begin with the Coronix, marked with H. the which is the highest parte of the Trabeation. Ouer Cymatium, shalbe sette Denticuli marked with I. whose height shalbe so much as the height of the myddlemost Fascia, and his fillet to be the sixt part of Denticuli and aboue Denticuli, ye shall sette Corona marked with K. and the height therof shalbe also like vnto the mydell Fascia. That height deuide into .4. partes, one of those partes admit vnto Cymatium aboue Corona, the Proiecture of the Denticuli and Corona with Cymatium, bangeth ouer so much as the frize is in height, if the frize be the fourthe part diminished. Thus writeth oure Author Vitruuius. Ouer Corona shalbe set Sima marked with L. whose height shalbe the eight part higher then Corona, with his Cymatiū & his Edge at the toppe to be the Sixte part of Sima added therto, the Proiecture to be like vnto his height, and so endeth the measures of Ionica.



Hus haue ye endid at y hiest part of Trabeationis whose marke is H. Regula the edge of Sima marked L. Cymatium, Corona, marked K. added ouer the woma Mutilos, & his Capital, Denticulus, marked I. Zophorus, marked F. Cymatiū marked G. EPISTYLIVM marked A. Cymatiū marked B. Fascia prima, marked C. Fascia Secūda marked D. Fascia Tertia marked E. CAPITVLIVM, marked T. Cymatium. Abacus, marked V. Frons Voluta, marked X. Astragalus. COLVMNA, vpon the pillor noted Scapus, marked R. Apophigis superior. Apophigis Inferior. BASIS, marked M. Torus marked O. Regula, Scotia, Superior, marked P. Regula, Astragalus Primus, Astragalus Secundus marked Q. Regula, Scotia, Inferior, Regula. Plinthus, marked N. Coronix, marked C. Regula. Cymatium marked H. Corona, marked I. Regula, in the finished piller is added Echinus, Regula Sima, marked K. Astragalus marked L. Regula. Quadratum. Sesquialtera. BASIS, of the pedestalle marked B. Regula, Cymatium inuersa addid Regula Astragalus marked D. Sima Reuersa marked E. Regula, Torrilus, marked F. Plinthus Primus marked G. Astragalus, Regula, Plinthus inferior being added vnto the Base of the pedestall for to increase his height and also for an other purpos most nesseary if the pillor stand on the ground and no stepes vnder the pedestall in the which bodye of the pedestall is demonstrated Ichnographia, where in I begane and also make an ende

CORYNTHIA



HERE BEGINETH THE PILLOR
that was founde in Corinthia, by Callimachus the excellent
Architeet of Corinth.



Then beginne with the Pedestal of Corinthia, ye shal enter thus, The flat stone or body of the Pedestal shalbe a square & 2. third partes in height the which is marked with A. whose height ye shal deuide into 7. partes, adde such a part vnto the Base of the Pedestall, marked with B. and as muche for the Coronix, whose marke is C. Then deuide the Base of the Pedestall marked with B. into 7. partes, Geue one vnto Cymatium, marked with D. and one vnto Astragalus, with his Regula, marked with E. Then geue 2. vnto Syma reuersa marked with F. with his fillet, Then geue one part vnto Torus, marked with G. the other 2. partes admitte vnto the highest Plinthus, marked with H. the Proiecture, of this Base is like vnto his height The other Plinthus, is added therunto, the cause wherof, is mencioned and declared before in Ionica, The deuide Coronix, marked with C. into 10. partes Geue vnto Cymatium aboue marked with I. 3. partes of the which his fillet shall haue 1. part Then admit also 2. partes to Corona, marked with K. and also 2. partes vnto Syma and his fillet or edge marked with L. the other 2. partes geue vnto Cymatium with his edge marked with M. and the tenth parte admit vnto Astragalus & Regula, marked with N. vnder Cymatium, the Proiecture ye shal make like vnto their height sauing onely Corona, whiche ought to hange ouer 2. third partes more then his height the which is a beautie vnto the whole Coronix and so endeth the measures & Proiectures, therunto belonging.

BASIS.



Now ye shal finde the measures of the thicknes of the pillor, which is the Diameter, as doth follow, deuide the bredthe of the boddye of the Pedestal into 6. partes, wherof the diameter or thicknes of the pillar shalbe 4. such parts & 3. height of the pillor shalbe 9. Diameters, wherof the Capitall shal haue 1. Diameter, for his height, & also the height of the Base shalbe halfe a Diameter, which base is marked with O whose height ye shall deuide into 4. partes wherof the Plinthus, marked with P. occupieth 1. part. The other 3. partes deuide into 5. parts. Geue vnto Torus, aboue which is marked with Q. one part, & the Torus beneth shalbe 3. forth part greater the the Torus aboue, & is marked with R. that which remaineth betwene the 2. Torus deuide into 2. partes, of the highest part ye shall make Trochilus, marked with S. wherof the Astragalus shalbe the sixte part, and his edge shalbe half his height, the other edge that lieth vnder the highe Torus shalbe in height the third parte more the the height of the other edge. The second part that remaineth is for the nethermost Trochilus or Scotia, marked with T. whose Astragali, shall also be in height the sixte part of Trochilus, and his edge shalbe halfe his height, the other edge that lieth on the nether most Torus, shalbe in height 2. third partes of the height of Astragali, the Proiecture of this base is thus. If this pillor stande vppon any other pillor, then shall the Proiecture therof be like vnto 3. Proiecture of 3. Base of Ionica, & if this pillar stand vppō 3. ground, or being alone by himself the shal this Proiecture of the Base be like 3. Proiecture, of the Base of Dorica, & thus endeth the Base of Corinthia.

The chiefe Groundes SCAPVS.

VPon the Base or foote of the piller ye shall sette Scapus, marked with V. whose height is .7. Diameters and a halfe, whose thicknes is diminished the sixte part of the toppe of Scapus, vppon either side half a parte as is before sayde vppon the third part of the height of Scapus, ye shall make the half compas, through the which ye may finde a faire diminishing as I haue said before in Tuscana, Dorica, and Ionica. If this piller be garnished and filled with Canaliculi, and Striges, whiche Vitruuius calleth Femora, there shalbe .28. in number rounde about the pillor. The mesures of them I haue before reherſed in the Ionica, ſauiug onely from the third part of the pillor downewar des, Aſtraguli be made and ſet vpright round aboute the piller within the Canaliculi, the maner therof you ſhall finde in the ground plot, the which ſtandeth here betwene the .2. pillers & is marked with X. The Proiecture, of Them doth anſwer iuſtly with the thicknes of the pillor: at the toppe of the piller ſhalbe made Aſtragalus & his edge, the which ſhalbe the twelfth part of a Diameter in height. The Proiecture therof is ſomuche, as the piller is diminished on either ſide, and thus finiſheth Scapus.

CAPITAL.

IF this Capitall Vitruuius maketh mencion in his fourth boke and firſt chapiter vppon the ſaid Scapus, which is the body of the piller, ye ſhal ſet the Capital being a Diameter in height, and is marked with I. that height deuide into .7. partes, admit one vnto Abacus, marked with A. the which part ye ſhal deuide into .3. partes geue .1. vnto Cimatium and his edge, the other .2. partes geue vnto Plinthus, the other .6. partes that remained from the Abacus downewar des, deuide into .3. partes, geue one part vnto the ſhortest leaues and alſo one other to the height of the myddle leaues. The third part is left for the height of Clauiculi, Vitruuius calleth it in the makinge of the Capitale of Ionica, Voluta, and is in this Capitall marked with B. being that which goeth out of Caulis, and turneth to 4 Corners of the Abacus and they be in number .8. rounde about the Capital, the which cloſeth together at the .4. corners of the Capitall, alſo there be other ſmaller, that are called Helices, the which ſpringe out of that which is the budde or Caules, and growe vppwar des right vnder the Abacus and haue but halfe the height of the other greater Helices, or Volutas and alſo .8. of them be rounde about growinge alſo .2. and .2. together vnder the .4. forefronts of the Abacus, ouer the which ſtandeth the flower or Roſe in the myddell of the Abacus whose height is equall with the thiknes or height of Abacus, being .4. roſes or flowers in nōber in the .4. frontes of the Abacus. Alſo vnder the Abacus is a certaine ſquare edge named Tenia, whose height is half ſomuche, as the Abacus is in height, his Proiecture anſwereth to the thicknes of the pillor or Scapus, beneth the which is the Diameter, Concerning the other Proiectures they beginne thus. The Proiecture of the Abacus anſwereth & is like vnto the Proiecture of the Plinthus of the Baſe or foote of the piller, and ſaileth ouer ſome what more then the Plinthus. Nowe to knowe how muche the Abacus hangeth ouer more then the Plinthus of the Baſe of the pillor, the which is ſhewed in the ground plotte named Ichnographia, and is marked with C. which grounde is to be made thus. Make you a rounde compas beinge of the thicknes of the piller then make a ſquare without that compas and alſo make an other compas, ſo grate as
maye

maye be, touching the .4. corner. of the sayd square, also set that cōpas within an other square, touchinge the .4. sides of the great combas. So done we shall come to the right ground and fascion of the Abacus, the which lieth on the vasse or basket, that was founde on the maydens tōbe in Corinthe, as before is reherſed. Now let vs finishe and ende the ground plotte of the Capital. That space which is left bitwene 3 two squares righte in the myddell of one of the sides, deuide you into .4. partes. Then take a paire of compas, setting the one point of the compas righte in the Corner of the greate square beinge marked with .5. and the other point of the compas bring vnto the other corner of that square marked with .6. and so drawe downewardes towardes .7. then bring that point of the compas, vpper agayne and set it in the place that it came from, and bringe downe the other point of the compas, from .5. vnto .7. and there it shall make a crosse. Then set the point of the compas, in the muddes of the crosse and the other point of the compas sette vpon the strike between the .2. squares, the which is marked with .3. and so drawe with the compas from .3. to .5. and againe from .3. to .6. and vse all the other sides in lyke maner, and so through it ye shall knowe the trewe Proiecture. Nowe to knowe whither this ground be vprighte or not, ye shall make a strike ouerthwarte the greate square from corner to corner, that line is named Diagonus, whose marke is C. being in lenght. 2. Diameters. So done is the ground plotte of this Capitall, vpright and trewe, the which bringeth with it, his trewe Proiecture. Also ye shall perceiue in this Capital, marked with I. that frō the vttermost of the Abacus, marked with A. is drawn a line by the side of the Capital, downewardes vnto the Astragali, that lieth vnder the Capitall, whose Proiecture, is so muche as the pillor is diminished on the one side. Then shall the Proiecture of the Voluta or greate Helices, marked with B. touche the line that is drawn by the side of the Capitall. The long leaues also vnder the Voluta, shall touche that line and in lyke case the shorte leaues. So done you haue your right and parfaicte grounde and the trewe vprighte measures of this Capitall with all his Proiectures. Touchinge this pillor that standeth on the other side, the whiche is Antique: it standeth in an Arch triumphale, whose height is. 29. modernelles and. 15. minutes, the length of which elle, containeth. 22. inches and a halfe. In Pantheon within Rome, and diuers other places in Italie are these pillers founde standing in good estate. For this cause haue I sette this Antique pillor here beside that ye should perceiue the beawtie whiche is in it, the whiche differeth littell from the firste inuention of Vitruuius. The bodie of this saide pillor is garnished with Canaliculi, the nōber of the is. 26. or 28. whose Capital, is a Diameter, in height beside the Abacus, and the Abacus added therto is the seuenth parte of a Diameter, his height to maintaine: the Antiques affirme that the firste Author hath mente it thus the Capitall to be a Diameter in height beside the Abacus, the height therof is before reberſed: also as muche as they haue added vnto the Capitall, so muche haue they diminished of the height of Scapus, So that the pillor remaineth yet. 9. Diameters in height, yea and some hath added the seuenth parte therto. Neuertheles it is beawtifull that they haue made, the other I do leaue to the disrescions of them whiche are or wilbe maisters in this worthe science, of Architecture. And thus finisbeth the order of this Capitall.

ARCHITRAVE, FRISE, AND CORNISHE.

The chiefe Groundes

Touching the Architraue, frise, & Cornish, biloging to Corinthia, Vitruuius, maketh no great mencion therof, Neuertheles he doth describe the beginning of Mutuli to be necessarie in all Mullers to be made as ye may perceiue by the antique workes or buildings. But this Architraue, frise, and Cornishe, shalbe like vnto that whiche was made for the Ionica, but vnto this Cornishe, is added Echinus, marked with G. standing betwixt Denticuli and Corona, being in height like vnto the vndermost Fascia, marked with D. the Proiecture of the Cornish, is increased somuche as Echinus is in height also vnto the Architraue is added vnder the seconde Fascia, marked with E. Astragalus, being in height the eight parte of that Fascia, make also that Astragalus, to be in height the eight part of the highest Fascia, marked with F the whiche Astragalus, shalbe as it were certaine rounde beryes and the other Astragalus, that lieth vnder the myddle Fascia, shalbe wrothonne like a wreathias concerning the Frise, it is to be orderd as before is mencioned in the measures of the Ionica, the proiecture of the foresaid Architraue, is before reherfed in Ionica.

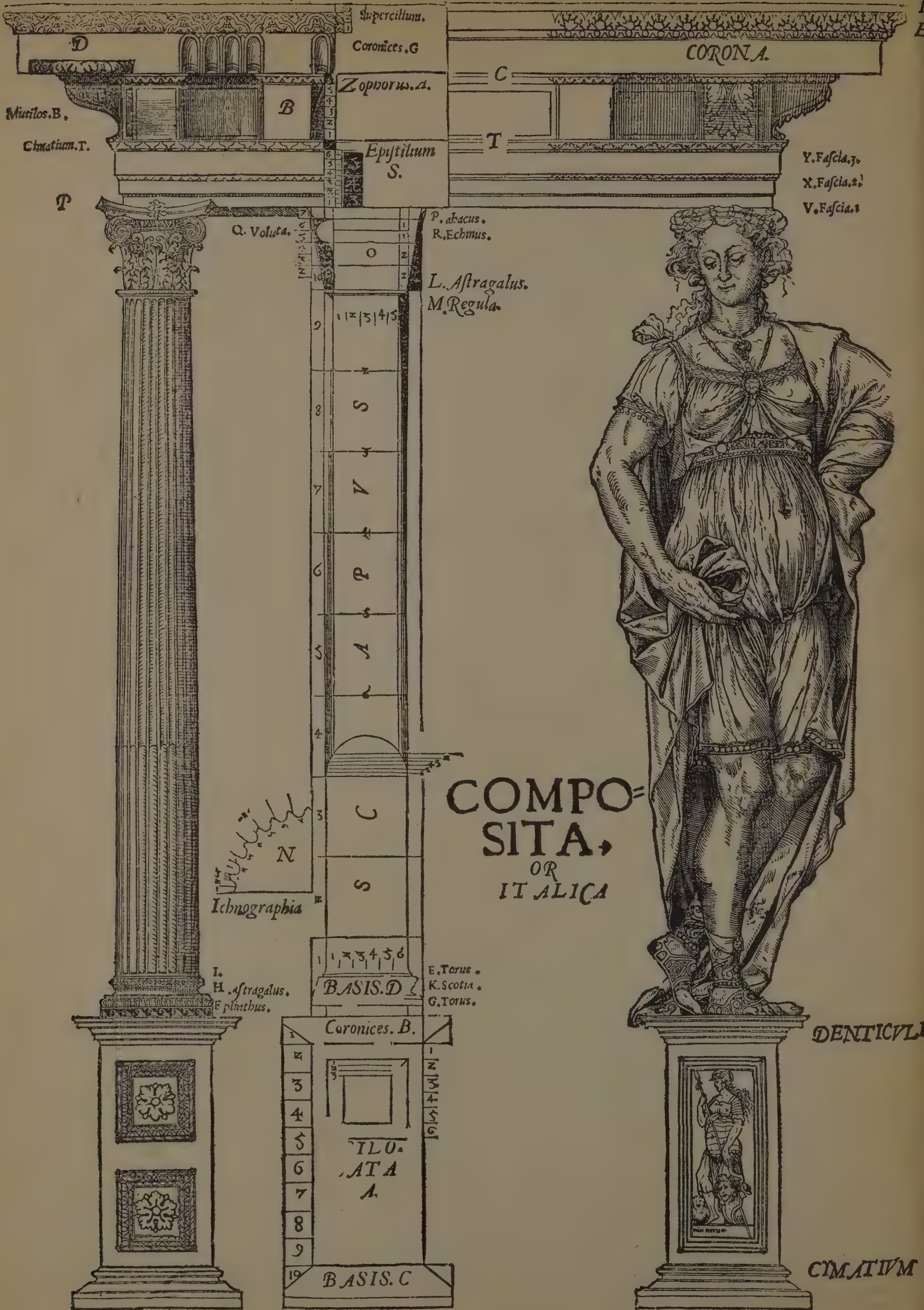
Now it behoueth to make mention of an other order and comen rule that the antiques heretofore haue vsed in their time of buildinges appertaining to the whole Trabeations of the Corinthie, the measures is as hereafter followeth. Deuide the height of the pillor with the Base and Capitall, into .4. partes, the which whole Trabeationes, shalbe in height as muche as .1. of the .4. partes of the height of the pillor, and that height deuide into .10. partes, wherof ye shall geue .3. vnto the height of Epistilium, the which we call Architraue, marked with I. and also geue .3. vnto the height of Zophorus, which we call y frise, marked with K. those .4. which remaigne geue vnto y Cornish, which Vitruuius called Coronices, marked with L. Concerning these .4. partes that are geuen vnto Coronix, deuide you into .9. partes geue .1. vnto Cymatium marked with M. and geue also .2. partes vnto Echinus, with his edge whose marke is N. and also geue .2. such partes vnto Mutuli, whiche is also named Modiglions, with his Cymatium marked with O also geue .2. of those partes vnto Corona, and his Cymatium, which is the forth parte of Corona, and is marked with P. and the other .2. partes geue vnto Syma, and his edge at the top which is the right part of the whole Syma, which is marked with Q. The Proiecture, shalbe as before is reherfed sauing onely that Mutuli, shall hange ouer so farre as ye maye conueniently not hyddnige or shadowing his Cymatium the which doth answere right to the Proiecture of Corona. Vitruuius declareth also the whole height of the Trabeationes, to be the fiftthe part of the length of the pillor, & so he writteth that it was made in Theatrum, wherof he maketh mention in his fiftth booke and seuenth chapter, this Trabeatione is of that height the whiche he spake of and is marked with H. Now as touching the other side that standeth ouer y garnished pillor, that is also antique it is enriched beawtifullie hauinge in it Denticuli, Echinus, and also Mutuli, the which Vitruuius, doth not allowe saing in his forth booke and second Chapter, that Denticuli, & Mutuli ought not to stande, or be made in one Cornishe or Coronix as ye may perceue by the other Coronices for that which standeth in the myddes hath Mutuli, and Echinus and hath not Denticuli, also the other Coronices that standeth ouer the Image hath in it Denticuli, & Echinus, but not Mutuli. So that which hath Mutuli hath not Denticuli, and likewise that, whiche hath Denticuli must not haue Mutuli, So that both these Coronices, haue their alteraciōe ye both obserue the Rule of Vitruuius, To the third Coronix, that the antiques, haue deuised in their buildinges

buildings they haue added Mutilos or Denticulos according to their willes & haue garnished it most triumphantly, as is manifest in diuers of their doinges. For the which they ought to be comended. For Vitruuius saith, that Mutili shalbe a necessary thinge in all Coronices, and he tracheth also, that Denticuli should be obserued in Ionica. Iemg that it may be suffered in Ionica, it is necessarye to be obserued in Corinthia, and is made in Italie to their commendation and fame, whose Prouidence therby doth more abound in beautie. Thus ende the measures and the makinge of Corinthia.

N Euerthelesse I thinke it good to make a brief rehefsall, retourning to the place where I began at, & also for that her is added diuers thinges, in the 3. chaunges of Trabeations in englishe calted architraue, frije, and Cornishe, the first and bigest is Regula Sima marked Q. Cymatium Corona marked P. Cymatium Mutili marked O. Regula Echinus marked G. Astragalus & Apophiges Denticuli Cymatium marked M Z O P H O R V S marked K. E P I S T Y L I V M marked I. Cymatium Fascia marked F. with his Astragalus. Fascia secunda marked E. Astragalus Fascia tertia marked D. C A P I T V L I marked Y. Abacus marked A. Flos Voluta Maiores marked B. Voluta Minores. Folia Minore. Caulis Folia media. Folia ima, C O L V M N A marked V. Astragalus Apophigis Superior et inferior. B A S I S marked O. Torus Superior marked Q. Regula, Scotia superior. marked S. Regula Astragalus Primus, Astragalus Secundus Regula, Trochilus marked T. Regula, Torus inferior marked R. Plinthus marked P. S T Y L O B A T A, Coronicis marked C. Cymatium marked I. Corona marked K. Sima marked L. Cymatium marked M. Astragalus et Apophigis marked N. Quadratum Proportionis super Bipartientis Tertia marked A. B A S I S. to the same marked B. Cymatium Reuersa marked D. Astragalus marked E. Sima Reuersa marked F. Torulus marked G. Plinthus marked H. Astragalus et Regula, Plinthus inferior, last of all I C H N O G R A P H I A the ground plotte and foundation where with this worke began and also endeth.

Ej.

COMPOSITA.



COMPOSITA OR ITALICA THE TRIUMPHANT

pillor, deuised by the Romanes, and fetcheth his compoundes out
of all the other before reherfed and written.



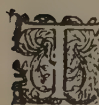
His pillor named Composita shalbe .10. Diameters in height, the which Dyameters are drawn ouerthwart the pillor, whereof the Capitall, is a wholle Dyameter in height, and Spira or Base is halfe a Dyameter in height. Now as concerning y measures of the Pedestall, the bredth of the square stone which is the bodye of the Pedestall shalbe doubled in the height, whiche Philander nameth the quadrante of the double proportio which is marked with A whose height shalbe deuided into .8. partes, one suche part ye shall adde to the height of his Coronix, marked with B. as muche you shall adde vnto his Base marked with C the other measures therin belonging shalbe as before is reherfed in the Corinthia, but in this Base is added Cymatium which lieth betwene Astragalus, & the square of the pedestall. Also Coronix is to be made as before is reherfed in Corinthia, but that in this, they haue added Denticulos, the which lie betwene Cymatium and Echinus, throughe the which it mounteth to a forther Proiecture, the which the Romaynes haue done for the more pleasure of the eye. As touchinge the bodye of the Pedestall they haue garnished it beautifully after diuers sortes as by these finished figures, ye maye perceiue. Nowe as the other Pedestalles before mencioned, were parted and deuided into so many partes as the pillors were Diameters in height, so is this Pedestall .10. partes in height of the which, the Base occupieth the lowest part, which is marked with C. Also y double square occupieth eight partes to his height, & the tenth part is admitted to Coronix, marked with B.

BASIS or SPIRA.



Ight and directely vpon the middell of the Pedestall shalbe set Spira or the Base of the pillor marked with D. whose height shalbe a Modulus, or halfe the thiknes of the pillor, y which height ye shal deuide into .6. partes geue one part vnto Torus aboue marked with E. y other .5. partes shalbe deuided into .3. partes geue one part vnto Plinthus marked with F. the other .2. partes you shall deuide into .12. partes wherof ye shal geue .5. partes vnto Torus the lower marked with G. geue also .2. partes to the two Astragalli with their Rue whose marke is. H. the which edge or regula is in height y one half of .1. Astragalus, geue also .1. parte vnto that, which is marked with I. some name it Echinus, but the garnishing therof is not like Echinus, which lieth vnder the higher Torus, whose edge shalbe half a part. So that the highest Torus, & Scotia, marked with K (the which y grekes call Trocheilon) be very nigh of one height. The Proiectures of this Base are as before is reherfed in Corinthia.

SCAPVS.



He body of y pillor shalbe .8. Diameters in height, y which are drawn ouerthwart the pillor. Now as touching the diminishing of the pillor aboue ye shall begin thus vpon the third Dyameter there ye shal trie the middle of the pillor vnder the Capitall. Then deuide the thiknes of your pillor into .6. partes that is .3. on eche side of y middle of the pillor and ye shall sette .5. suche partes for the thiknes of the pillor vnder the Capitall,

E.y.

which

The chiefe Groundes

which shalbe.2. and a halfe on eche side of the pillors myddel, from the which thiknes of the pillor vnder the Capitall drawe both the sides downewardes perpendicularly vppon the thirde Diameter wheron ye shall make a halfcyrcele so greate as it maye be within the Diameter or thiknes of the pillor and it shall make on eche side a crosse ouer the perpendicular line measure from the crosses downewardes euen vpon the strike of the halfcyrcele or compas to the ouerthwart strike vpon the third Diameter & deuide it into.6. partes, making.6. lines crossing ouer the halfcyrcele. And ye shall begin to drawe from the line marked.2. in the halfe cyrcle vnto the ouerthwart line at the toppe of the pillor marked with.2. and also from the line of the halfe cyrcle.3. drawe vppwardes perpendicularly to the ouerthwart strike marked with.3. and so drawe vppwardes from.4. to the ouerthwart line marked.4. and so from.5. to.5. and also perpendicularly drawe from.6. to.6. Then take a rule and drawe from Diameter vnto Diameter downewardes, closing vpon y^e side of the pillor as you may perceue by your figure, for I haue drawn & closed the one side of the pillor, and the other side I haue lefte open that ye should plainly perceine the working therof, the height of the Diameter, vnder the Capitall ye shall deuide into 12. partes the bigest part shalbe deuided into.3. equall partes, wherof ye shal geue.2. vnto Astragalus, marked with L. and the third part shalbe geuen to the edge or Senta, which is marked with M. Also an other litle square edge, which lieth vpon the Base being at the lowest parte of Scapus shalbe in height like vnto Astragalus, at the top of Scapus. Concerning the garnishing of the body of the pillor or Scapus, which oure authour calleth Canaliculi and Striges, the antiques haue deuised so many sundry sortes, that herin the beautye of them cannot be expresse. But amonge all other in Pantheon, is a pillor thus deuided. Ther be Canaliculi, round about the pillor.24. in number, and eache of them is deuided into 9. partes, of the whiche partes.4. is geuen vnto that, whiche oure authore nameth Stryges, vpon the which are made vpright in the middle therof Astragali, whose bredthe is.2. of those.4. partes, the other.2. partes are lefte for Stryges. So that vpon eache side of the Astragali is left one part. The other.5. partes are left for Canaliculi, the which are hollowe in wardes. There is an other pillor, the which standeth in Basilia del foro transitorio, in Rome, the which is made much after one fashon but that the Architect hath made his Canaliculi, somewhat biggar or largar. And that measure is thus. The pillor rounde about shalbe deuided into.28. or.32. partes The occasion wherfore the number of those doth differ, is for the placinge of the pillor standing farre or nigh vnto the eye, for if this pillor stande farre from the eye, there shalbe in number.24. and at the most but.26. And if the pillor standeth nigh vnto the eye, there shalbe in number.28. or.30. and at the moste, they made 32. rounde about the pillor. Nowe eche of those partes shalbe deuided into.3. partes, let.2. of those partes be geuen to Canaliculi, the thirde parte ye shal deuide into.4. partes wherof geue.2. vnto Astragalus, and the other.2. that remaine, geue vnto the Strigeus, that stande on eche side of the Astragalus, the bredthe of eche of them is a parte, as ye may perceine by this Ichnographia the whiche figure is and standeth here betwene your 2. pillors being your parfaicte ground of the bodye of the pillor or Scapus, whiche is marked with N. Thus finishinge the measures, the Proiectures shalbe as is before declared in making of the other pillors.

CAPITAL.



QN the toppe of Scapus, or pillor shalbe sett the Capitall, whose height shalbe a Diameter, in the which Capitall Abacus with his long and short leaues, and his Caules out of the which spring the smaller Helices, be a portion taken from Corinthia. Also they haue brought to pas in this Capitall Voluta and Echinus and Astragalus, with his rule, which is and are portiones of Ionica. The measures of this Capital are thus. From the pillor vpwardes to the toppe of the Capitall, that is marked with O. whose height is a Diameter shalbe deuided into. 7 partes, wherof one shalbe geuen to Abacus, lieng at the toppe of the Capitall, which is marked with P. the which partes, some Architectes haue added to the height of the Capitall, so that they haue made it to be in height a Diameter, and the seuenth parte of a Diameter, as before is reherfed in the Capitall of Corinthia, but so muche as they haue added to the height of the Capital, somuche haue they abated from the height of Scapus. Nowe of the forsaide. 7. partes, doo remayne yet 6. the which shalbe reduced into. 3. partes, the one shalbe geuen vnto the shorte leaues for their height, the second part shalbe added vnto the height of the myddle leaues, and the third part vnto Voluta, marked with Q. as for the height of Echinus, marked with R. shalbe founde in the makinge of Voluta, as before is mencioned in Ionica. The Proiecture of this Abacus, whose marke is P. shalbe euen so muche as is the Proiecture of the Plinthus, the which is the lowest parte of the Bases. of the pillor euen as it is before saide. in the ground plot of Corinthia, This done drawe from the vtter moste of the Abacus, downewardes along by the side of the Capitall, vnto the vttermost of the Astragall lienge vnder the Capitall, whose Proiecture, shalbe so muche as it is in height This done you shall cause Voluta to touche the strike that you haue drawen by the side of the Capitall, and also the myddell and longe leaues vnder Voluta, shall haue their Proiecture to touche that line, and also the shorte leaues shall touche the same. This done ye haue the true measures and proiectures of this Capitall, but there be diuerse other beawtifull Capitalls, belonging to this pillor whiche hereafter more plainly shall appere.

EPISTILIUM.

THe height of this Epistilium, or Architraue marked with S. shalbe the thiknes of the pillor aboue vnder the Capitall, but if this pillor shall stande nighe vnto the eye then make the height therof, as before is reherfed in the other pillors, which height shalbe deuided into. 7 parts wherof one shalbe geuen vnto Cimatium marked with T. the other. 6. partes, deuided into. 12. partes, geue. 3. of them to the firste Fascia, marked with V. also geue. 4. to the second Fascia, marked with X and geue 5. vnto the third Fascia, marked with Y. vnder the second and third Fascia, shalbe added Astragali with Apophigis, to the garnishing therof, the Proiectures, and measures shalbe as is before reherfed in Corinthia. Vpon the Epistiliū, ye shall sete Zophorus or Fresse marked A. wherin Mutili doth stand being in height like to Epistiliū, the Mutili shall stande right ouer the pillor, their bredth shalbe the fyste parte lesse then the thiknes is of the pillor vnder the Capital, and they be marked with B. whose height shalbe deuided into. 6. partes, Cimatium occupieth somuche as one of the. 6. partes added for that whiche is the Capitall vnto the Mutili, & is marked with C. the space betwene the. 2. Mutili, shalbe so muche, as twyse the bredth of Mutili, the Proiectures of Mutilos shalbe as muche as the wholle Mutili is in height. As touching the Coronices, the one side differeth from the other, both being

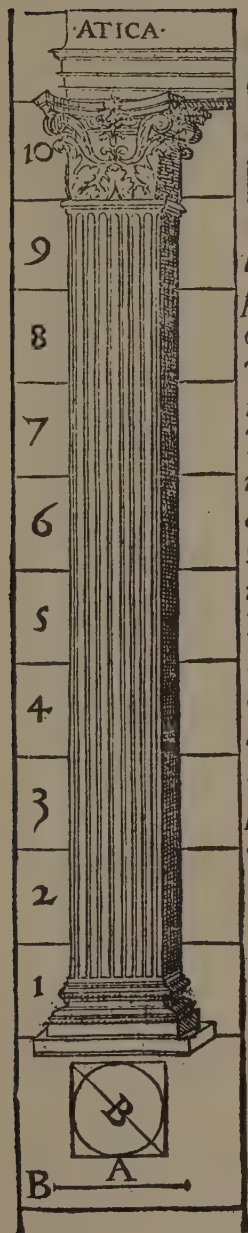
Eij.

fayre

The chiefe Groundes

fayre, take of them which pleaseth your mynde best, their heightes shalbe like vnto y height of Mutilus. Then ye shall deuide that side ouer the pillor into. 7. partes. Geue. 4. vnto Corona, marked with D. also geue. 2. vnto Cymatium, marked with E. the seuenth parte is lefte for Supercilium or Regula, marked with F. The Proiecture therof shalbe lyke their heightes the other side of the Coronix, ouer y maiden which is marked with G. shalbe deuided into. 2. equal partes, the lowest parte shalbe geuen vnto Corona, the seconde parte shalbe deuided into. 5. partes, geue one vnto that with his edge which is like to Echinus, geue. 3. vnto Cimatium, and the fift the parte, geue vnto Supercilium. The Proiectures of Mutilus with the Coronix shalbe somuche as they be both in height, Mutilus standing in Zophorus, the antiques haue deuised for a commoditie and a beawtie to their edifices. But the cause why they were sette in Zophorus with diuers other monuments therto belonging herafter shalbe declared as time shall serue. Thus haue I finished for this time the figures, garnishementes, and measures of these fine pilleres before specified.

OF AN OTHER AVTENTIKE PILLER AND A
nesceſſarie Companion to the before named pillers made by the Atheniens
to his perfection named ATTICVRC A.



THIS piller Plinius maketh reherſall and as he ſaith is a corner pillor, being foure ſquare, whoſe Diameter marked with A. (ſaith he) is like vnto the round pillers, which he ſtandeth by but in y^e Diagonall line marked B. he is thicker then the rounde pillers. It is that piller which Vitruuius nameth Atticurga or Attica, made by y^e Atheniens, the which natiō vſed alſo y^e meſures of Corinthia in their pillers. So that the Capital of this foreſaide piller, is much like to y^e Capital of Corinthia. The Spira, or Baſe of the ſaide Attica, wherewith alſo they vſed to garniſh Corinthia, Vitruuius, alſo, witneſſeth of ſuche a pillor, declaring and ſaith, that Spira attica ſhould be like vnto Spira or Baſe Ionica. Thus haue you all the maner and meſures of pillers that any notable maiſters of Architecture or Authours therof haue written. As in order do followe. Tuſcana containeth in height. 6. Diameters Dorica 7. Diameters in height. Ionica 8. Diameters in height, Corinthia 9. Diameters in height, and Compoſita, containeth 10. Diameters in height, Nowe of this forſayde pillor Atticurga, I finde no mencion made of his height. But of the multitude of his Canaliculi, whiche be. 7. on either ſide of the pillor. And as touchinge his height, wherof no mention is made, it is to be thought that he muſt beare ſuche height as the reſt of the pillors for Vitruuius ſaith that y^e higheſt pillor paſſeth not. 10. Diameters, in height ſo that his height may be agreeable to the height of thoſe round pillors that are loyned with him, whither they be Compoſita or Corinthia, which I my ſelfe haue ſene in Rome in the arke triumphant of Seuerus, beinge ioined with Compoſita, alſo in Pantheon where his three ſides plainly are ſene, the fourth ſtanding in the wal, the Capital and baſe is like to the round pillers, wherewith he ſtandeth being Corinthia. The Proiecture of his baſe was like vnto Spira attica, the which is halfe a Modulvs on either ſide of the Baſe, the which Vitruuius more plainly at large declareth.

The chiefe Groundes

¶ **THE CHAVNGE OF THE FIVE PILLERS ORDERLY**
to be vsed eche of them in his kynde whiche order of buildinges be named of Vitruvius
as followeth **PICNOSTYLOS, SISTYLOS, DIASTYLOS,**
ARIOSTYLOS, EVSTYLOS, whose pictures in few.th
demonstrated in order.



Owe forsomuche as I haue reherfed the beginning and the Institution of this arte of Architecture, naming the writers and authors of the said science, and declared the measures geometrycall therto belonging in their simetries, with all their garnishementes: it is therfore also requisit to reherse and to let you vnderstand, by what meanes the order of the before named pillers shalbe altered in their standing, adding, or abating to or fro, euery of them accordingly as they shalbe placed, by whiche knowledge or like knowledges many may come to the righte perfectiō, vpon whiche occasion it shalbe declared what mention Vitruvius doth make in the third booke and second Chapter & also the opinion of Sebastianus Serlius and other vpon the same, how far and how nere the pillers shalbe set a sunder: Saying that this order of Picnostylos ought thus to be made, that which is the space betwene the 2. pillers shalbe a Diameter and a halfe the pillar being in height. 10. Diameters. Systylos is that which hath 2. Diameters betwixt the 2. pillers, whose height shalbe 9. Diameters and a halfe. Diastylos shall thus be made, the pillers shall stand. 3. Diameters one from an other, whose height shalbe 8. Diameters and a halfe. Ariostylos is that, which hath the space or bredth betwene the pillers. 4. 5. or 6. Diameters, and at the furdest. 7. Diameters, the whiche pillers comonly are. 8. Diameters in height: but in the Eustylos the authors differ. the one saith that his measure is like Diastyli, and the other saith that it ought to be like Systyli, and so because Diastyli is. 8. Diameters and a halfe and Systyli. 9. and a halfe. therfore oure authoure hath made betwene them both an vniformity, and causeth Eustylos to be. 9. Diameters in height. This done Areostyli is. 8. Diameters in height. Diastyli. 8. Diameters and a halfe. Eustylos 9. Diameters. Systyli. 9. and a halfe, and Picnostyli. 10. Diameters. Nowe like as Tuscana, Dorica, Ionica, Corinthia, & Composita, increase cheir heightes by Diameters, so do these 5. here before reherfed increase their heightes by Modulus or half Diameters, and you shal also garnish & fashion them according to their lengthes, as I haue by their lenght shewed before their similitude and strength, whiche you shall see and perceiue more plainely in the demonstrations followinge.

AREOSTYLOS.



Beginning with this first being Areostylos, as Ce-
sarianus saith, ought to be in height. 8. Diame-
ters and the distaunce betwene the 2. pillors to be
4. 5. or 6. Diameters as is before reherfed, whiche pillar
for his strength is likned or to be sembled vnto Tuscana
necessary for all foundations and fortifications both to
withstande great forse, & supporte wayghtie burdens, as
a maister builder can vse him, which is to be sene in diuers
places in Italie, calling it Rusticke or Rughe hewed stone,
and in other places to be otherwise garnished.

DIASTYLOS.



He second order as I haue placed it is that whiche Vitruuius calleth Diastylus, whose height (saith he) is: 8 Diameters and a halfe, and the distaunce betwene the 2. pillars ought to be. 3. Diameters or. 4. at y furdest, which pillor is likned vnto Dorica made to his perfection in the tēple of Mars. which also is a piller to garnishe cyties and gates somewhat pleasaunt and stronge as is to be sene in diuers places, as also gates of pallaces with the vtter galleries.

EVSTYLOS.



He third order is that whiche Vitruuius calleth Eustylus, the whiche oure Author hath brought to a vniformity, saying the piller to be in height. 9. Diameters, & the distaūce betwen the 2. pillars to be. 2. Diameters & a quarter, as Gulibeline Philander affirmeth, but at the furdest. 2. Diameters and a halfe or. 3. which piller is likned vnto Ionica builded to his perfection in the tēple of Diana & Apollo & to be vsed in many meane edifices to be garnished accordinglye.

SISTYLOS.



He fourth order is that whiche Vitruuius calleth Systylus, whose height (saith he) is. 9. diameters and a halfe, whose pillers standeth distant one from the other. 2. Diameters, or. 2. and a halfe at the fourdest and after this maner it was made in the temple of Fortune, which piller is likned vnto Corinthia, whose measures are slender & serueth to garnish princes pallaces and for diuers other thinges necessarye whiche multitude nedeth not to be reherfed, but as time shall serue they maye be practised and brought in vre to diuers vses most necessarye.

The chiefe Groundes

PICNOSTYLOS.



He first & last order is that which Vitruuius, calleth Picnostylos whose height saieth he is. 10 Diameters whose pillers standeth distant frō eche other a Diameter, & a halfe or 2. at y furdest & thus was it made in the tēple of Venus which piller is sembled or to be compared vnto Composita hauing in it the full beawtie of al the forsaide measures and garnishments, for al excellent artificers, beawtifully to set furth whether it be in golde or siluer or other riche stone or fine woodes in marketrey or imbosinge or caruing as shalbe thought pleasānt & necessary for noble & mighty p̄ices or for diuers other estates louers of excellency or cōinge.

AN OTHER RYLE GEVEN BY VITRUVIUS for these three orders of pillers Dorica, Ionica, Corinthia, to be vsed as folowith.

Now if you will begin with the order of Dorica, you shall deuide his height with the Base and Capitall into. 15. partes, one of those partes shalbe the height of the Base and as much vnto the height of the Capital, whiche shalbe the Modulus of the worke. If it shalbe the order of Ionica, you shall deuide the height of Scapus, with the Base and Capitall into. 8. partes and a halfe, and one of those partes shalbe the Diameter of the whole worke, whose Base shalbe a Modulus in height, his Capital shalbe as before is reherfed in Ionica. also if you will make an order of Corinthia, ye shall make it as I haue now reherfed of this laste piller, sauing onely that in the stede of the Capitall of Ionica, ye shall set the Capitall of Corinthia, which is a dyameter in height. Now ye shall vnderstand that Vitruuius doth not will Dorica, Ionica, and Corinthia, to stande one vpon an other but he willethe the Edifice to be all of Dorica, or els all of Ionica, or all of Corinthia, and they to stande one vpon an other, alway d. minishinge, so that the higher they stand, the lesser or sklenderer they muste be, for, as he saieth, a tree is no where so greate, as at the ground, and so groweth smaller and smaller vppwardes vnto the toppe. like wyse, he willethe the lowest pillor to be strongest made vpon the measure, as before is sayd, and the second pillor, that standeth ouer him, both in height and bredthe shall diminishe his fourthe parte. And his Architraue, frese or Cornish shalbe in heigth the fifteth parte of the height of that piller, and so settinge the one vpon the other, diminishinge after thi. sayde order. Some of the antiques afor said haue obserued these orders and measures, as Sebastianus, doth witnesse in his third boke and fourth Capiter that there are many edifices of the antiques wherein all. the orders of these pillers haue bene sette one vpon an other: garnishing them accordinglye as it is yet to be sene in the Amphitiatrum named Collosseum in Rome whose excellent and praise worthy doing shalbe more plainly sette fourth hereafter.

¶ HERE IS AN OTHER NECESSARIE

Rule appointed of Vitruuius for the diminishing of
Scapus, vnder the Capitall by the increasing
of his height:

foote	diam	part
15	6	5
20	6 $\frac{1}{2}$	5 $\frac{1}{2}$
30	7	6
40	7 $\frac{1}{2}$	6 $\frac{1}{2}$
50	8	7
60	8 $\frac{1}{2}$	7 $\frac{1}{2}$
70	9	8
80	9 $\frac{1}{2}$	8 $\frac{1}{2}$
90	10	9
100	10 $\frac{1}{2}$	9 $\frac{1}{2}$
110	11	10

Vitruuius, in his third booke and thir d Chapiter, saith thus
if Scapus amounte in height from.15.foote vnto.20. the Dia-
meter is to be deuided into.6.partes & a halfe, & the thicknes
of the pillor vnder the Capitall, shalbe.5 and a halfe. And if Scapus,
Amounte from.20.vnto.30.foote then shall the Diameter be deuided
into.7.partes, wherof.6.partes shalbe the thicknes of the pillor vn-
der the Capitall and so augmenting and diminishing after this order
vntill Scapus, if it were possible, shoulde amounte to the number of
110.foote whiche is the ende of this table that standeth here beside
wherin ye maye perceiue in euery.10.foote increasinge in height doth
shew the thicknes of Scapus vnder the Capitall, so that the
110.foote in height of Scapus; the Diameter to be
deuided into.11.partes, then shalbe the
thicknes of Scapus, vnder the Ca-
pitall.10.of those.11.partes, & so
furth if nede shall require.

¶ AN OTHER EXAMPLE TO BE

observed very necessary for the maister builder or Architecte
that is for the intarging of the Epistilium, when the
pillor amounteth to certaine heightes.

foote	diam	part
15	13	12
20	13	12
25	12	12
30	12	12
35	11	12
40	11	12
45	10	12
50	10	12
55	9	12
60	9	12

Vitruuius in the latter ende of his thir d booke declaring when
the piller that is to saye Base Scapus, and Capitall amount-
eth from.15.foote to.20.foote in height, then shal the height
of the wholle pillor be deuided into.12.partes, on such a part
shalbe the height of the Epistilium, also if the pillor do increafe from
20.to.25.foote then shall the piller be deuided into.12. partes and a half
wherof the height of the Epistilium, shall occupie one such part, also
if the piller surmount frō.25.to.30. the height of the pillor must be de-
uided into.12 partes wherof the height of the Epistilium, shall occupie
one such part & so forth as the colume increaseth in height so increa-
seth the height of Epistilium, as in this table is euidently discused the
encreasing from.15.to.60.foote increased by.5 at ones the whiche pil-
lor of.60.foote in height shalbe deuided into.9.partes, where of the E-
pistiliū occupieth for his height one such part, and so passing forward
as neceffitie shall requyre in order as is before mencioned.

F.y.

Ther be

The chiefe Groundes

There be also diuers other orders of measures and example that the Antiques alwayes vsed in their times, which shoulde be to tedious for the hearer, and to long for the Reader, hauing no figures out of the whiche springeth both desire and also encouragment to the same. Thus ending this treatie of the Introduction and measures of these for sayd pillars, whiche are the original first grounds and entring into this noble science of Architecture, practised and alowed by right mighty and worthe potentates, and Emperours for perpetuall memorye of their victorious and triumphant feates, the Elegance therof, of all antiquitie hath bene and yet presentely is as a parfaicte example and a myrroure to behold, lerne and take trewe measures, as well to all suche, as a delight in durable Edifices and buildinges, as also to all noble parsonages and Architectures, whiche do or shall take pleasure to erecte & builde the like to any beawte and perfection accordinge to the deuise and myndes of the forsaide Authours Vitruuius, and Sebastianus Serlius, to whom vndoubtedly, the praise and comendation is chiefly to be attributed and given. I submyt my trauel, vnto allothet that in any parte be or shalbe of more parfaict & deeper learninge, knowledge and experience, and of like well wylling affection, wherewith I do offer this my poore atemptes and smal trauailes.

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